



SEQUENCE LISTING

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<120> Nucleotide and Deduced Amino Acid Sequences of the  
Envelope 1 and Core Genes of Isolates of Hepatitis C  
Virus and the use of Reagents Derived From These  
Sequences in Diagnostic Methods and Vaccines

<130> 20264116US2

<140> 09/084,691

<141> 1998-05-26

<150> 08/290,665

<151> 1994-08-15

<150> 08/086,428

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<160> 274

<170> PatentIn Ver. 2.1

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ttggtaatag ctcagctgct cagggtcccc caagccgtct tggacatgat cgctggtgcc 480
cactggggag tcctagcggg catagcgtat ttctccatgg cggggaactg ggccaagggtc 540
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<213> Homo sapiens

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<223> Individual Isolate: SW1

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<213> Homo sapiens

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<212> DNA  
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<220>  
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

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<223> Individual Isolate: IND5

<400> 16

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<213> Homo sapiens



<220>

<223> Individual Isolate: P10

<400> 18

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<212> DNA

<213> Homo sapiens

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<400> 19

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cacgtaacag gtcaccgcat ggcttgggat atgatgatga actggtcgcc tacagcagcc 420
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cactggggag tcctggcggg ccttgccctac tattccatgg tggggaactg ggctaagggt 540
ctgattgtga tgctactctt tgccggcggt gacggg 576

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<210> 21

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA10

<400> 21

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tatgaagtgc gcaacgtgtc cgggatgtac catgtcacga acgactgtc caactcaagc 60
atttgtgtatg aggcagcgga catgatcatg cacaccccgc ggtgcggtgcc ctgctgttcgg 120
gagaacaact cctcccgttg ctgggttagcg ctactccca cgctcgcggc caggaactcc 180
agcgtcccca ctacgacaat acgacgccac gtcgatttgc tcgttggggc ggctgctttc 240
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cgcgtaacag gtcaccgcat ggcttgggat atgatgatga actggtcacc tacaacagct 420
ctagtagtat cgcagttact ccggatccca caagctatcg tggacatggg ggcgggggcc 480
cactggggag tcctagcggg ccttgccctac tattccatgg tggggaactg ggctaagggt 540
ttgattgtta tgctactctt tgccggcggt gacggg 576

```

<210> 22

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SW2

<400> 22

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tatgaagtgc gcaacgtgtc cggggtgtat catgtcacga acgactgttc caactcaagc 60
atttgtgtatg agacagcgga catgatcatg cataaccccgc ggtgcggtgcc ctgctgttcgg 120
gaggccaact cctcccgttg ctgggttagcg ctactccca cgctagcagc caggaacacc 180
agcgtcccca ctacgacaat acgacgccac gtcgatttgc tcgttggggc ggctgctttc 240
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actttttcac ctgcccggca cgagacagta caggactgca actgttccat ctatcccggc 360
cacgtatcag gtcaccgcat ggcttgggac atgatgatga actggtcacc tacagcagcc 420

```

```

ctggtggtat cgcagttact ccggatccca caagctgtcg tggacatggt agcggggggcc 480
cactggggag tcctggcggg ccttgcatac tattccatgg tggggaactg ggctaagggtt 540
ttgattgtga tgctactctt tgctggcggt gacggg 576

```

<210> 23

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T3

<400> 23

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tacgaagtgc gcaacgtgtc cggggtgtac tatgtcacga acgactgttc caactcaagc 60
atttgttatg agacagcgga catgatcatg cacaccctg ggtgcgtgcc ctgcgttcgg 120
gagagcaatt cctcccgctg ctgggtagcg cttactccca cgctcgcggc caggaacgcc 180
agcgtcccca ctaagacaat acgacgtcac gtcgacttgc tcgttggggc ggctgctttc 240
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cacgtaacag gtcaccgtat ggcttgggat atgatgatga actggtcgcc cacaacggca 420
ctagtgggtg cgcagttgct ccggatccca caagctgtcg tggacatggt ggcgggggcc 480
cactggggag tcctggcggg ccttgcctac tattccatgg tggggaactg ggctaagggtt 540
ttgattgtgc tgctactctt tgccggcggt gatggg 576

```

<210> 24

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T10

<400> 24

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tatgaagtgc gcaacgtgtc cgggatgtac catgtcacga acgactgttc caactcaagc 60
atttgttttg aggcagcgga cttgatcatg cacaccccg ggtgcgtgcc ctgcgttcgg 120
gagggcaact cctcccgctg ctgggtagcg ctcactccca cgctcgcggc caggaacacc 180
agcgtcccca ctacgacgat acgacgccat gtcgatttgc tcgttggggc ggctgctttc 240
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catctgtcag gtcaccgcat ggcttgggac atgatgatga actggtcgcc tacaacagct 420
ctagtgggtg cgcagttact ccggatccca caagctgtca tggacatggt gacagggggc 480
cactggggag tcctggcggg ccttgcctac tattccatgg cggggaactg ggctaagggtt 540
ttaattgtga tgctactctt tgccggcggt gatggg 576

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<210> 25

<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: US6

<400> 25  
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gagaacaatt cctcccgtg ctgggtagcg ctactccca cgctcgcggc caggaacgct 180  
agcgtcccca ctacgacaat acgacgccac gtcgatttgc tcgttggggc ggctactttc 240  
tgctccgcta tgtacgtggg ggacctctgc gggtcggtt tcctcatctc ccagctgttc 300  
accttctcgc ctgcgcagca tgagacagta caggactgca attgttcaat ctatcccggc 360  
cacgtatcag gtcaccgcat ggcttgggat atgatgatga attggtcacc tacagcagcc 420  
ctagtgggat cgcagttact ccggatccca caagctgtca tggacatggg ggcgggggcc 480  
cactggggag tcctggcggg ccttgccctac tattccatgg tggggaactg ggctaagggt 540  
ctgatttgtg tgctactctt tgccggcggt gacggg 576

<210> 26  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: T2

<400> 26  
gccccagtga ggaacaccag ccgcgggttac atgggtgacta acgactgttc caatgagagc 60  
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ctgggaaata catcccgat ctggataccg gtcacaccaa acgtggccgt gcggcagccc 180  
ggcgtcttta cgcagggctt gcggacgcac atcgacatgg ttgtgatgtc cgccacgctc 240  
tgctctgccc tctacgtggg ggacctctgc ggcgggggtga tgctcgcagc ccagatgttc 300  
attgtctcgc cgcgacgcca ctggtttgtg caagaatgca attgctccat ctaccccggg 360  
accatcactg gacaccgtat ggcatgggac atgatgatga actggtcgcc cacagccacc 420  
atgatectgg cgtacgcgat gcgcgttccc gaggtcatca tagacatcat cggcgggggt 480  
cactggggcg tcatgtttgg cttggcctac ttctctatgc agggagcgtg ggcgaagggt 540  
attgtcatcc tcttgctggc tgctgggggt gacgcg 576

<210> 27  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: T4

<400> 27

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gcacaagtga agaacaccac taacagctac atggtgacca acgactgttc taatgacagc 60
atcacttggc agtccaggc cgcggtcctc cacgtccccg ggtgtgtccc gtgcgagaaa 120
acgggaaata catctcggtg ctggataccg gtttcaccaa acgtggccgt gcggcagccc 180
ggcgccctca cgcagggctt gcggacgcac attgacatgg ttgtgatgtc cgccacgctc 240
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atcgtctcgc cgcaacatca ctggtttgtg caagactgca attgctctat ctaccctggc 360
accatcactg gacaccgtat ggcatgggat atgatgatga actggtcgcc cacggccacc 420
atgatcctgg cgtacgcgat gcgcgttccc gaggtcatct tagacatcgt tagcggggca 480
cactggggcg tcatgttcgg cttggcctac ttctctatgc agggagcgtg ggcgaaagtc 540
gttgtcatcc ttctgtctgc cgctgggggtg gacgcg 576
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<210> 28

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 28

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gccgaagtga agaacaccag taccagctac atggtgacaa atgactgttc caacgacagc 60
atcacctggc aactccaggc cgcggtcctc cacgtccccg ggtgcgtccc gtgcgagaga 120
gttggaacag cgtcgcggtg ctggataccg gtctcgccaa acgtagctgt gcagcggcct 180
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attatctcgc cgcagcacca ctggtttgtg caggaatgca actgctccat ttaccctggt 360
accatcactg gacaccgtat ggcatgggac atgatgatga actggtcgcc cacaaccacc 420
atgatcttgg cgtacgcgat gcgcgttccc gaggtcatca tagacatcat cagcggagct 480
cactggggcg tcatgttcgg cctagcctac ttctctatgc agggagcgtg ggcgaaagtc 540
gttgtcatcc tgttgtctac cgctggcggtg gacgcg 576
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<210> 29

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: US10

<400> 29

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gtccaagtga aaaacaccag taccagctat atggtgacca atgactgttc caacgacagc 60
atcacttggc aacttgaggc tgcggtcctc cacgttcccc ggtgtgtccc gtgcgagaaa 120
gtgggaaata catctcggtg ctggataccg gtctcaccaa atgtggccgt gcagcggcct 180
ggcgccctca cgcagggctt gcggactcac atcgacatgg tcgtgatgtc cgccacgctc 240
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```

tgctccgctc tttacgtggg ggacttctgc ggtgggatga tgctcgcagc ccaaattgttc 300
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accatcaccg ggcaccgtat ggcatgggac atgatgatga actggtcgcc cacggccact 420
ttgatcctgg cgtacgtgat gcgcgttccc gaggtcatca tagacatcat tagcggggcg 480
cattggggcg tcttgttcgg cttagcctac ttctctatgc agggagcgtg ggcgaaagtc 540
gttgatcatcc ttctgctagc cgctgggggtg gacgcg 576

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<210> 30

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK8

<400> 30

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atcacctggc aactcaccca cgcagttctc caccttcccc gatgcgtccc atgtgagaat 120
gacaatggca ccctgcgctg ctggatacaa gtgacaccta atgtggctgt gaaacaccgc 180
ggcgcaacta ctcataacct gcgaacacac gtcgacgtga tcgtaatggc agctacggtc 240
tgctcggcct tgtatgtggg agacgtatgc ggggccgtga tgatcgtgtc gcaggctctc 300
ataatatcgc ctgaacgcca caactttacc caggagtga actgttccat ctaccaaggc 360
catatcaccg gccaccgcat ggcatgggac atgatgctaa actggtcacc aactcttacc 420
atgatcctcg cctatgccgc tcgtgttccct gagctagccc tccaggttgt cttcggcggc 480
cattggggcg tgggtgtttgg cttggcctat ttctccatgc agggagcgtg ggccaaagtc 540
attgccatcc tccttcttgt cgcaggagtg gatgca 576

```

<210> 31

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK11

<400> 31

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gtggaagtca ggaacaccag ttctagttac tacgccacca atgattgctc aaacaacagc 60
atcacctggc aactcaccaa cgcagttctc caccttcccc gatgcgtccc atgtgagaat 120
gacaatggca ccctgcactg ctggatacaa gtgacaccta atgtggctgt gaaacaccgc 180
ggcgcaacta ctcacaacct gcgagcacat atagatatga ttgtaatggc agctacggtc 240
tgctcggcct tgtatgtggg agacgtgtgc ggggccgtga tgatcgtgtc gcaggctttc 300
atagtatcgc cagaacacca ccactttacc caagagtga actgttccat ctaccaaggc 360
cacatcaccg gccaccgcat ggcatgggac atgatgctta actggtcacc aactctcacc 420
atgatcctcg cctatgccgc ccgtgttccct gagctagtc ttgaagtcgt cttcgggtgt 480
cattgggggtg tgggtgtttgg cttggcctat ttctccatgc agggagcgtg ggccaaggtc 540
attgccatcc tccttcttgt agcaggagtg gatgca 576

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<210> 32  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SW3

<400> 32  
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atcacctggc aactcaccaa cgcagtcctc caccttcccg gatgcgtccc gtgtgagaat 120  
gataatggca ccctgcaact ctggatacaa gtgacaccta atgtggctgt gaaacaccgc 180  
ggcgcgctca ctcacaacct gcgagcacac gtcgatatga tcgtaatggc agctacggtc 240  
tgctcggcct tgtatgtggg agacatgtgc ggggccgtga tgatcgtgtc gcaggctttc 300  
ataatatcgc cagaacgcca caactttacc caagagtga actgttccat ctaccaaggt 360  
cgtatcaccg gccaccgcat ggcgtgggac atgatgctaa actggtcacc aactcttacc 420  
atgatccttg cctatgccgc tcgtgttcct gagctagtcc ttgaagttgt cttcggcggc 480  
cattggggcg tgggtgtttg cttggcctat ttctccatgc aaggagcgtg ggccaaggtc 540  
attgccatcc tcctgcttgt cgcaggagtg gatgca 576

<210> 33  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: T8

<400> 33  
gtggaagtta gaaacaccag ttttagctac tacgccacca atgattgctc gaacaacagc 60  
atcacctggc agctcaccaa cgcagttctc caccttcccg gatgcgtccc atgtgagaat 120  
gacaatggca ccttgcgctg ctggatacaa gtaacaccta atgtggctgt gaaacaccgt 180  
ggcgcaactca ctcacaacct gcgaacgcat gtcgacgtga tcgtaatggc agctacggtc 240  
tgctcggcct tgtatgtggg ggacgtgtgc ggggccgtga tgatagcgtc gcaggctttc 300  
ataatatcgc cagaacgcca caacttcacc caggagtga actgttccat ctaccaaggt 360  
catatcaccg gccaccgcat ggcattgggac atgatgctga actggtcacc aactctcacc 420  
atgatcctcg cctacgctgc tcgtgtgcct gaactagtcc ttgaagttgt cttcggcggc 480  
cattggggcg tgggtgtttg cttggcctat ttctccatgc aaggagcgtg ggccaagtc 540  
atcgccatcc tcctccttgt cgcaggagtg gacgca 576

<210> 34  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: S83

<400> 34

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gtggaggtca aggacaccgg cgactcctac atgccgacca acgattgctc caactctagt 60
atcgtttggc agcttgaagg agcagtgtt catactcctg gatgcgtccc ttgtgagcgt 120
accgccaacg tctctcgatg ttgggtgccg gttgccccca atctcgccat aagtcaacct 180
ggcgctctca ctaagggcct gcgagcacac atcgatatca tcgtgatgtc tgctacggtc 240
tgttctgccc tttatgtggg ggacgtgtgt ggcgcgctga tgctggccgc tcaggtcgtc 300
gtcgtgtcgc cacaacacca tacgtttgtc caggaatgca actgttccat ataccgggc 360
cgcattacgg gacaccgcat ggcttgggat atgatgatga actggtcgcc cactaccacc 420
atgctcctgg cgtacttggg gcgcattccc gaagtcattc tggatattgt tacaggaggt 480
cattgggggtg taatgtttgg cctcgcttac ttctccatgc agggatcgtg ggccaaggctc 540
atcgttatcc tcctgctgac tgctgggggtg gaggcg 576
```

<210> 35

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK12

<400> 35

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atcgtgtatg aggccgatga cgtcattctg cacacacctg gctgtgtacc ttgtgttcag 120
gacggcaata catctacgtg ctggacctca gtgacgccta cagtggcagt caggtagctc 180
ggagcaacca ccgcttcgat acgcagtcac gtggacctgc tagtgggcgc ggccacgatg 240
tgctctgcgc tctacgtggg tgatgtgtgt ggggcgctct tccttgtggg acaagccttc 300
acgttcagac ctgcgcgcca tcaaacagtc cagacctgta actgctcgtc gtaccagggc 360
catctttcag gacatcgaat ggcttgggat atgatgatga attgggtccc cgtgtgggt 420
atggtggttag cgcacgtcct gcgtctgccc cagaccttgt tcgacataat agctggggcc 480
cattggggca tcatggcggg cctagcctat tactccatgc agggcaactg ggccaaggctc 540
gctatcatca tggttatgtt ttcaggagtc gatgcc 576
```

<210> 36

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 36

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ctagagtggc ggaatgtgtc tggcctctat gtccttacca acgactgtcc caatagcagt 60
```



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atttgtgtatg aggccgatga cgtcattctg cacacacctg gctgtgtacc ttgtgttcag 120
gacggcaata catccacgtg ctggacctcg gtgacaccta cagtggcagt caggtagctc 180
ggagcaacca ccgcttcgat acgcagtcac gtggacctgt tagtgggagc gccacgatg 240
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atggtggtgg cgcacgtcct gcggttgccc cagacctgtg tcgacataat agccggggcc 480
cattggggca tcttggcagg cctagcctat tactccatgc agggcaactg ggccaaggtc 540
gctatcatca tggttatgtt ttcaggggtc gatgcc 576

```

<210> 37

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S2

<400> 37

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ctagagtggc ggaatacgtc tggcctctat gtcctacca acgactgttc caatagcagt 60
atttgtgtatg aggccgatga cgttattctg cacacacctg gctgtgtacc ttgtgttcag 120
gacggtaata catccacgtg ctggacccca gtgacaccta cagtggcagt caggtagctc 180
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atggtggtgg cgcacgttct gcggttgccc cagaccgtgt tcgacataat agccggggcc 480
cattggggca tcttggcggg cctagcctat tactccatgc aaggcaactg ggccaaggtc 540
gctatcatca tggttatgtt ttcaggggtc gacgcc 576

```

<210> 38

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S52

<400> 38

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ctagagtggc ggaatacgtc tggcctctat gtcctacca acgactgttc caatagcagt 60
atttgtgtatg aggccgatga cgtcattctg cacacacccg gctgtgtacc ttgtgttcag 120
gacggcaata catccatgtg ctggacccca gtgacaccta cgggtggcagt caggtagctc 180
ggagcaacca ccgcttcgat acgcagtcac gtggacctat tagtgggagc gccacgctg 240
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acgttcagac ctcgtcgcca tcaaacggtc cagacctgta actgctcgct gtaccagggc 360
catgtttcag gacatcgaat ggcttgggat atgatgatga attgggtccc cgctgtgggt 420

```

```

atggtggtgg cgcacatcct gcgattgccc cagaccttgt ttgacatact ggccggggcc 480
cattggggca tcttggcggg cctagcctat tattctatgc agggcaactg ggccaaggtc 540
gctattgtca tgattatggt ttcaggggtc gatgcc 576

```

<210> 39

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S54

<400> 39

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ctagagtggc ggaatacgtc tggcctctat atccttacca acgactgttc caatagcagt 60
attgtgtatg aggccgatga cgtcattctg cacacacccg gctgtgtacc ttgtgttcag 120
gacggcaata catccacgtg ctggacccca gtgacaccta cggtaggcagt caggtagctc 180
ggagcaacca ccgcttcgat acgcagtcac gtggacctat tagtgggcgc ggccacgctg 240
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acgttcagac ctcgctcgcca tcaaacggtc cagacctgta actgctcgct gtaccaggc 360
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atggtggtgg cgcacatcct gcgattgccc cagaccttgt ttgacatact ggccggggcc 480
cattggggca tcttggcggg cctagcctat tattctatgc agggcaactg ggccaaggtc 540
gctatcatca tgattatggt ttcaggggtc gatgcc 576

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<210> 40

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: Z4

<400> 40

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gagcactacc ggaatgcttc gggcatctat cacatcacca atgattgtcc gaattccagt 60
atagtctatg aagctgacca tcacatccta cacttgccgg ggtgcgtacc ctgtgtgatg 120
actgggaaca catcgcggtg ctggacgccg gtgacgccta cagtggctgt cgcacacccg 180
ggcgctccgc ttgagtcggt ccggcgacat gtggacttaa tggtaggcgc ggccactttg 240
tgttctgccc tctatgttgg ggacctctgc ggaggtgcct tcctgatggg gcagatgac 300
acttttcggc cgcgctcgcca ctggaccacg caggagtgca attgttccat ctacactggc 360
catatcaccg gccacaggat ggcgtgggac atgatgatga actggagccc taccaccact 420
ctgctcctcg ccagatcat gaggggtccc acagccttcc tcgacatggg tgccggaggc 480
cactggggcg tcctcgcggg cttggcgtag ttcagcatgc aaggcaattg ggccaaggta 540
gtcctgggtc ttttcctctt tgctggggta gacgcc 576

```

<210> 41

<211> 576  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: Z1

<400> 41

```
gtgcactacc ggaatgcttc gggcgtctat catgtcacca atgattgccc taacaccagc 60
atagtgtacg agacggagca ccacatcatg cacttgccag ggtgtgtccc ctgtgtgcgg 120
acggagaata cttctcgtcg ctgggtgccc ttgaccccca ctgtggccgc gccctatccc 180
aacgcaccgt tagagtccat gcgcaggcat gtagacctga tgggtgggtgc ggctactatg 240
tgttccgcct tctacattgg agatctgtgt ggaggcgtct tcctagtggg ccagctgttc 300
gacttccgac cgcgccggca ctggaccacc caggattgca actgctccat ctatcctggg 360
cacgtctcgg gccacaggat ggccctgggac atgatgatga actggagccc taccagcgcg 420
ctgattatgg ctacagatctt acggatcccc tctatcctag gtgacttgct caccgggggt 480
cactggggag ttcttgctgg tctagctttc ttcagcatgc agagtaactg ggcaagggtc 540
atcctggtcc tattcctctt tgccgggggtc gagggga 576
```

<210> 42

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: Z6

<400> 42

```
gttaactatc gcaatgcctc gggcgtctat cacgtcacca acgactgccc gaactcgagc 60
atagtgtatg aggccgaaca ccagatctta cacctcccag ggtgcttgcc ctgtgtgagg 120
gttggaatc agtcacgctg ctgggtggcc cttactccca ccgtggcggg gtcttatatc 180
ggtgctccgc ttgactccct ccggagacat gtggacctga tgggtgggcgc cgctactgta 240
tgctctgccc tctacgttgg agatctgtgc ggtggtgcat tcttggttgg ccagatgttc 300
tccttccagc cgcgacgcca ctggactacg caggactgca attgttctat ctacgcaggg 360
catatcacgg gccacaggat ggcatgggac atgatgatga actggagtcc cacaaccacc 420
ctgcttctcg cccaggatcat gaggatccct agcactctgg tagatctact cgctggaggg 480
cactggggcg tccttggttg gttggcgtag ttcagtatgc aagctaattg ggccaaagtc 540
atcctggtcc tttcctctt cgctggagtt gatgcc 576
```

<210> 43

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: Z7

<400> 43

```
gtcaactatc acaatgcctc gggcgtctat cacatcacca acgactgccc gaactcgagc 60
ataatgtatg aggccgaaca ccacatccta cacctcccag ggtgcgtacc ctgtgtgagg 120
gaggggaacc agtcacgctg ctgggtggcc cttactccca ccgtggcggc gccttatatc 180
ggtgcaccgc ttgaatccat ccggagacat gtggacctga tggtaggcgc tgctacagtg 240
tgctccgctc tctacattgg ggacctgtgc ggtggcgtat ttttggttgg tcagatgttt 300
tctttccagc cgcgacgcca ctggactacg caggactgca attgttccat ctatgcgggg 360
cacgttacag gccacagaat ggcatgggac atgatgatga actggagtcc cacaaccacc 420
ttggtcctcg cccaggttat gaggatccct agcactctgg tggacctact cactggaggg 480
cactggggta tccttatcgg ggtggcatac ttctgcatgc aagctaattg ggccaaggtc 540
attctggtcc ttttctctta cgctggagtt gatgcc 576
```

<210> 44

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK13

<400> 44

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tacaactatc gcaacagctc ggggtgtctac catgtcacca acgattgccc gaactcgagc 60
atagtctatg aaaccgatta ccacatctta cacctcccgg gatgcgttcc ttgcgtgagg 120
gaagggaaca agtctacatg ctgggtgtct ctcaccccca ccgtggctgc gcaacatctg 180
aatgctccgc ttgagtcttt gagacgtcac gtggatctga tggtaggcgc cgccactctc 240
tgctccgccc tctacatcgg agacgtgtgt gggggtgtgt tcttggtcgg tcaactgttc 300
accttccaac ctgcgcgcca ctggaccacc caagactgca attgttccat ctacacagga 360
catatcacag gacacagaat ggcttgggac atgatgatga attggagccc cactgcgacg 420
ctggtcctcg cccaacttat gaggatccca ggcgccatgg tgcacctgct tgcaggcggc 480
cactggggca ttctggttgg catagcgtac ttcagcatgc aagctaattg ggccaaggtt 540
atcctggtcc tgtttctctt tgctggagtc gacgct 576
```

<210> 45

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA1

<400> 45

```
gttccctacc ggaatgcctc tgggggtttac catgtcacca atgactgccc aaactcctcc 60
atagtctacg aggcgtgatag cctgatcttg cagcacctg gctgcgtgcc ctgtgtcagg 120
caagataatg tcagtaggtg ctgggtccaa atcaccccca cactgtcagc cccgaccttc 180
ggagcgggtca cggctcctct tcggagggcc gttgactact tagcgggagg agctgctctc 240
```

```

tgctccgcac tatacgtcgg cgacgcgtgc ggggcagtgt ttctggtagg ccaaagtgtc 300
acctataggc ctgccagca taccacagtg caggactgca actgttccat ttacagtggc 360
catatcaccg gccaccggat ggcttgggac atgatgatga attggtcacc tacgacagcc 420
ttgctgatgg ccagatgct acggatcccc cagggtgtca tagacatcat agccgggggc 480
cactgggggg tcttgtttgc cgccgcatac tttgcgtcgg ccgccaactg ggctaaggta 540
gtgctgggtc tgttcctggt tgcgggggtc gatggc 576

```

<210> 46

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA4

<400> 46

```

gttccctacc gaaacgcctc tggggtttat catgtcacca atgattgccc aaactcttcc 60
atagtttacg aggctgataa cctgatcttg catgcacctg gttgcgtgcc ttgtgtcagg 120
caagataatg tcagtaagtg ctgggtccaa atcaccccca cgttgtcagc cccgaatctc 180
ggagcgggtca cggctcctct tcggagggcc gttgactact tagcgggagg ggctgccctc 240
tgctccgcac tatacgtcgg ggacgcgtgc ggggcagtgt ttttggtagg ccaaagtgtc 300
acctataggc ctgccagca cactacggtg caagactgca attgctctat ttacagtggc 360
catatcaccg gccaccggat ggcatgggac atgatgatga attggtcacc tacgacggcc 420
ttgctgatgg ccagttgct acggattccc cagggtgtca tcgacatcat tgccgggggc 480
cactgggggg tcttgtttgc cgccgcatac ttcgcgtcag cggctaactg ggctaagggt 540
atactggtct tgtttctggt tgcgggggtc gatgcc 576

```

<210> 47

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA5

<400> 47

```

gtccctacc gaaatgcctc tggggtttat catgtcacca atgattgccc aaactcttcc 60
atagtttacg aggctgataa cctgattctg cagcacctg gttgcgtgcc ctgtgtcaag 120
gaaggtaatg tcagtaggtg ctgggtccaa atcaccccca cattgtcagc cccgaacctc 180
ggagcgggtca cggctcctct tcggagggtc gttgactact tagcgggagg ggctgccctc 240
tgctccgcac tatacgtcgg ggacgcgtgc ggggcagtgt tcttggtagg ccaaagtgtc 300
acctataggc ctgccagca tactacggtg caggactgca actgttccat ttacagcggc 360
catatcaccg gccaccgaat ggcatgggac atgatgatga attggtcacc tacgacagcc 420
ttggtgatgg ccagggtgct acggattccc caagtgtca ttgacatcat tgccgggggc 480
cactgggggg tcttgttcgc cgtcgcatac ttcgcgtcag cggctaactg ggctaagggt 540
gtgctgggtc tgtttctggt tgcgggggtc gatggc 576

```

<210> 48  
<211> 576  
<212> DNA  
<213> Homo sapiens

<400> 48  
gttccttacc ggaatgcctc tgggggtgtat catgtttacca atgattgccc aaactcttcc 60  
atagtctatg aggctgatga cctgaccta cagcacctg gctgcgtgcc ctgtgtccgg 120  
aaggataatg tcagtagatg ctgggttcat atcaccccca cactatcagc cccgagcctc 180  
ggagcgggtca cggctcctct tcggagggcc gttgattact tggcgggagg ggccgccctg 240  
tgctccgcgt tatacgtcgg agacgtgtgc ggggcattgt ttttggtagg ccaaagtgtc 300  
acctataggc ctgccagca tgctacgga caggactgca actgctccat ttacagtggc 360  
catatcactg gccaccggat ggcatgggac atgatgatga attggtcacc cgcgacagcc 420  
ttggtgatgg cccaaatgct acggattccc caggtggtca ttgacatcat tgccgggggc 480  
cactgggggg tcttgttcgc cgctgcatac ttcgcgtcgg cggctaactg ggctaagggt 540  
gtgctggtct tgtttctgtt tgcgggggtt gatgcc 576

<210> 49  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA7

<400> 49  
gtccccctacc gaaatgcctc cgggggtttat catgtcacca atgattgccc gaactcttcc 60  
atagtctatg aggctgacaa cctgaccta cagcacctg gttgcgtgcc ctgtgtcaga 120  
caaaataatg tcagtaggtg ctgggtccaa atcaccccca cattgtcagc cccgaacctc 180  
ggagcgggtca cggctcctct tcggagggcc gttgactacc tagcgggagg ggctgccctc 240  
tgctccgcgc tatacgtcgg ggacgcgtgc ggggcagtgt ttttggtagg ccagatgttc 300  
agctataggc ctgccagca cactacggtg caggactgca actgttccat ttacagtggc 360  
catatcaccg gccaccgaat ggcatgggac atgatgatga attggtcacc tacgacagcc 420  
ttggtgatgg ccagttgct acggattccc caggtggtca tcgacatcat tgccgggggc 480  
cactgggggg tcttgttcgc cgccgcatat ttcgcgtcag cggctaactg ggctaagggt 540  
gtgctggtct tgtttctgtt tgcgggggtc gatgcc 576

<210> 50  
<211> 576  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA13

<400> 50

```
gttcctacc gaaatgcctc tgggggtttat catgtcacca atgattgcc aaactcttcc 60
atcgtctacg aggctgatga cctgatctta cagcacctg gttgcgtgcc ctgtgttagg 120
cagggtaatg tcagtaggtg ctgggtccag atcaccccca cactgtcagc cccgagcctc 180
ggagcgggtca cggctcctct tcggagggcc gttgactact tagcgggggg ggctgccctt 240
tgctccgcgt tatacgtcgg agacgcgtgc ggggcagtgt ttttggtagg tcaaagtgtc 300
acctatagcc ctgcgccgga taatgttgtg caggactgca actgttccat ttacagtggc 360
cacatcaccg gccaccggat ggcatgggac atgatgatga attggtcacc tacaacagct 420
ttggtgatgg ccagttgtt acggattccc caggtggtca ttgacatcat tgccggggcc 480
cactgggggg tcttggtcgc cgccgcatac tacgcgtcgg cggctaactg ggccaagggt 540
gtgctgggtc tgtttctgtt tgcgggggtc gatgcc 576
```

<210> 51

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK2

<400> 51

```
cttacctacg gcaactccag tgggctatac catctcacia atgattgcc caactccagc 60
atcgtgctgg aggcgggatgc tatgatcttg catttgccctg gatgcttgcc ttgtgtgagg 120
gtcgatgatc ggtccacctg ttggcatgct gtgaccccca ccctggccat accaaatgct 180
tccacgcccc caacgggatt ccgcaggcat gtggatcttc ttgcggggcg cgagtggtt 240
tgctcatccc tgtacatcgg ggacctgtgt ggctctctct ttttggcggg acaactattc 300
acctttcagc cccgccgtca ttggactgtg caagactgca actgctccat ctatacaggc 360
cacgtcaccg gccacaggat ggcttgggac atgatgatga actggtcacc cacaaccact 420
ctggtcctat ctagcatctt gagggtagct gagatttgtg cgagtgtgat atttggtggc 480
cattggggga tactactagc cgttgccctac tttggcatgg ctggcaactg gctaaaagtt 540
ctggtgtgtc tgttcctatt tgcagggggt gaagca 576
```

<210> 52

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK7

<400> 52

```
Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys
1           5           10          15
```

```
Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr
```

20					25					30						
Pro	Gly	Cys	Val	Pro	Cys	Val	Arg	Glu	Gly	Asn	Val	Ser	Arg	Cys	Trp	
35					40					45						
Val	Ala	Met	Thr	Pro	Thr	Val	Ala	Thr	Arg	Asp	Gly	Lys	Leu	Pro	Thr	
50					55					60						
Ala	Gln	Leu	Arg	Arg	His	Ile	Asp	Leu	Leu	Val	Gly	Ser	Ala	Thr	Leu	
65					70					75					80	
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Leu	Cys	Gly	Ser	Val	Phe	Leu	Val	
85					90					95						
Gly	Gln	Leu	Phe	Thr	Phe	Ser	Pro	Arg	Arg	His	Trp	Thr	Thr	Gln	Gly	
100					105					110						
Cys	Asn	Cys	Ser	Ile	Tyr	Pro	Gly	His	Ile	Thr	Gly	His	Arg	Met	Ala	
115					120					125						
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Thr	Ala	Leu	Val	Val	Ala	
130					135					140						
Gln	Leu	Leu	Arg	Ile	Pro	Gln	Ala	Ile	Leu	Asp	Met	Ile	Ala	Gly	Ala	
145					150					155					160	
His	Trp	Gly	Val	Leu	Ala	Gly	Ile	Ala	Tyr	Phe	Ser	Met	Val	Gly	Asn	
165					170					175						
Trp	Ala	Lys	Val	Leu	Val	Val	Leu	Leu	Leu	Phe	Ala	Gly	Val	Asp	Ala	
180					185					190						

<210> 53

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK9

<400> 53

Tyr	Gln	Val	Arg	Asn	Ser	Ser	Gly	Leu	Tyr	His	Val	Thr	Asn	Asp	Cys
1					5					10				15	



Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Ser  
 20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Lys Cys Trp  
 35 40 45

Val Ala Val Ala Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala  
 50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu  
 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
 85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp  
 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala  
 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Met Ala  
 130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala  
 145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn  
 165 170 175

Trp Ala Lys Val Val Val Val Leu Leu Leu Phe Thr Gly Val Asp Ala  
 180 185 190

<210> 54

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DR1

<400> 54

His Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys  
 1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Ala  
                   20                          25                          30  
 Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp  
                   35                          40                          45  
 Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr  
                   50                          55                          60  
 Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu  
                   65                          70                          75                          80  
 Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
                                   85                          90                          95  
 Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp  
                   100                          105                          110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala  
                   115                          120                          125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala  
                   130                          135                          140  
 Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala  
                   145                          150                          155                          160  
 His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn  
                                   165                          170                          175  
 Trp Ala Lys Val Val Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala  
                   180                          185                          190

<210> 55

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DR4

<400> 55

His Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys

1	5	10	15
Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr			
20	25	30	
Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Thr Ser Arg Cys Trp			
35	40	45	
Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr			
50	55	60	
Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu			
65	70	75	80
Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val			
85	90	95	
Gly Gln Leu Phe Thr Phe Ser Pro Arg His His Trp Thr Thr Gln Asp			
100	105	110	
Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala			
115	120	125	
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ala			
130	135	140	
Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala			
145	150	155	160
His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn			
165	170	175	
Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala			
180	185	190	

<210> 56  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S14

<400> 56

Tyr	Gln	Val	Arg	Asn	Ser	Thr	Gly	Leu	Tyr	His	Val	Thr	Asn	Asp	Cys	1	5	10	15
Pro	Asn	Ser	Ser	Ile	Val	Tyr	Glu	Thr	Ala	Asp	Ala	Ile	Leu	His	Ala	20	25	30	
Pro	Gly	Cys	Val	Pro	Cys	Val	Arg	Glu	Gly	Asn	Thr	Ser	Arg	Cys	Trp	35	40	45	
Val	Ala	Met	Thr	Pro	Thr	Val	Ala	Thr	Arg	Asp	Gly	Lys	Leu	Pro	Ala	50	55	60	
Thr	Gln	Leu	Arg	Arg	Tyr	Ile	Asp	Leu	Leu	Val	Gly	Ser	Ala	Thr	Leu	65	70	75	80
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Leu	Cys	Gly	Ser	Val	Phe	Leu	Val	85	90	95	
Gly	Gln	Leu	Phe	Thr	Phe	Ser	Pro	Arg	Arg	Leu	Trp	Thr	Thr	Gln	Asp	100	105	110	
Cys	Asn	Cys	Ser	Ile	Tyr	Pro	Gly	His	Ile	Thr	Gly	His	Arg	Met	Ala	115	120	125	
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Thr	Ala	Leu	Val	Val	Ala	130	135	140	
Gln	Leu	Leu	Arg	Ile	Pro	Gln	Ala	Ile	Leu	Asp	Met	Ile	Ala	Gly	Ala	145	150	155	160
His	Trp	Gly	Val	Leu	Ala	Gly	Ile	Ala	Tyr	Phe	Ser	Met	Val	Gly	Asn	165	170	175	
Trp	Ala	Lys	Val	Leu	Val	Val	Leu	Leu	Leu	Phe	Ala	Gly	Val	Asp	Ala	180	185	190	

<210> 57  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S18

<400> 57

Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Thr Ile Leu His Ser  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp  
35 40 45

Val Pro Val Ala Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Ala  
50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Ile Ser Pro Arg Arg His Trp Thr Thr Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Ile Ala  
130 135 140

Gln Leu Leu Arg Val Pro Gln Ala Val Leu Asp Met Ile Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Ala Gly Asn  
165 170 175

Trp Ala Lys Val Leu Leu Val Leu Leu Leu Phe Ala Gly Val Asp Ala  
180 185 190

<210> 58

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW1

<400> 58

Tyr	Gln	Val	Arg	Asn	Ser	Ser	Gly	Leu	Tyr	His	Val	Thr	Asn	Asp	Cys
1				5				10						15	
Pro	Asn	Ser	Ser	Ile	Val	Tyr	Glu	Thr	Ala	Asp	Ala	Ile	Leu	His	Ser
			20					25					30		
Pro	Gly	Cys	Val	Pro	Cys	Val	Arg	Glu	Asp	Gly	Ala	Pro	Lys	Cys	Trp
		35					40						45		
Val	Ala	Val	Ala	Pro	Thr	Val	Ala	Thr	Arg	Asp	Gly	Lys	Leu	Pro	Ala
	50					55					60				
Thr	Gln	Leu	Arg	Arg	His	Ile	Asp	Leu	Leu	Val	Gly	Ser	Ala	Thr	Leu
65					70					75					80
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Leu	Cys	Gly	Ser	Val	Phe	Leu	Val
				85					90					95	
Ser	Gln	Leu	Phe	Thr	Phe	Ser	Pro	Arg	Arg	His	Trp	Thr	Thr	Gln	Asp
		100						105						110	
Cys	Asn	Cys	Ser	Ile	Tyr	Pro	Gly	His	Ile	Thr	Gly	His	Arg	Met	Ala
	115						120					125			
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Thr	Ala	Leu	Val	Val	Ala
	130					135					140				
Gln	Leu	Leu	Arg	Ile	Pro	Gln	Ala	Val	Leu	Asp	Met	Ile	Ala	Gly	Ala
145				150						155					160
His	Trp	Gly	Val	Leu	Ala	Gly	Ile	Ala	Tyr	Phe	Ser	Met	Val	Gly	Asn
			165					170						175	
Trp	Ala	Lys	Val	Leu	Ile	Val	Leu	Leu	Leu	Phe	Ser	Gly	Val	Asp	Ala
		180					185						190		

<210> 59

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US11

<400> 59

Tyr Gln Val Arg Asn Ser Thr Gly Leu Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp  
35 40 45

Val Ala Met Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro Thr  
50 55 60

Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Gly  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ala  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Met Ile Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly Val Asp Ala  
180 185 190

<210> 60

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: D1

<400> 60

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asp Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Gly Asn Val Pro Thr  
50 55 60

Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile  
85 90 95

Ser Gln Leu Phe Thr Leu Ser Pro Arg Arg His Glu Thr Val Gln Glu  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 61

<211> 192

<212> PRT

<213> Homo sapiens



<220>

<223> Individual Isolate: D3

<400> 61

Tyr	Glu	Val	Arg	Asn	Val	Ser	Gly	Val	Tyr	Gln	Val	Thr	Asn	Asp	Cys
1				5					10					15	
Ser	Asn	Ser	Ser	Ile	Val	Tyr	Glu	Thr	Ala	Asp	Met	Ile	Met	His	Thr
			20					25					30		
Pro	Gly	Cys	Val	Pro	Cys	Val	Arg	Glu	Asp	Asn	Ser	Ser	Arg	Cys	Trp
		35					40					45			
Val	Ala	Leu	Thr	Pro	Thr	Leu	Ala	Ala	Arg	Asn	Ser	Ser	Val	Pro	Thr
	50					55					60				
Thr	Thr	Ile	Arg	Arg	His	Val	Asp	Leu	Leu	Val	Gly	Ala	Ala	Ala	Phe
65					70					75					80
Cys	Ser	Ala	Met	Tyr	Val	Gly	Asp	Leu	Cys	Gly	Ser	Val	Phe	Leu	Val
				85					90					95	
Ser	Gln	Leu	Phe	Thr	Phe	Ser	Pro	Arg	Arg	His	Glu	Thr	Val	Gln	Glu
		100						105					110		
Cys	Asn	Cys	Ser	Ile	Tyr	Pro	Gly	His	Val	Thr	Gly	His	Arg	Met	Ala
		115					120					125			
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Ala	Ala	Leu	Val	Val	Ser
	130					135						140			
Gln	Leu	Leu	Arg	Ile	Pro	Gln	Ala	Val	Val	Asp	Met	Val	Ala	Gly	Ala
145					150					155					160
His	Trp	Gly	Val	Leu	Ala	Gly	Leu	Ala	Tyr	Tyr	Ser	Met	Val	Gly	Asn
				165					170					175	
Trp	Ala	Lys	Val	Leu	Ile	Val	Met	Leu	Leu	Phe	Ala	Gly	Val	Asp	Gly
			180					185						190	

<210> 62

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK1

<400> 62

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Val Asp Val Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn His Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Ile Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Ala Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Leu Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Ala Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 63

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK3

<400> 63

Tyr Glu Val Arg Asn Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Val Val Tyr Glu Thr Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Val Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 64

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK4

<400> 64

His Glu Val His Asn Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Ile Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Leu Pro Gln Ala Val Met Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 65  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: HK5

<400> 65  
 Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
   1                  5                  10                  15  
 Ser Asn Leu Ser Ile Val Tyr Glu Thr Thr Asp Met Ile Met His Thr  
                   20                  25                  30  
 Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
                   35                  40                  45  
 Val Ala Leu Ala Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr  
                   50                  55                  60  
 Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
   65                  70                  75                  80  
 Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
                   85                  90                  95  
 Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
                   100                  105                  110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala  
                   115                  120                  125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
                   130                  135                  140  
 Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
   145                  150                  155                  160  
 His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
                   165                  170                  175  
 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
                   180                  185                  190

<210> 66  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: HK8

<400> 66  
 Tyr Glu Val Arg Asn Val Ser Gly Ile Tyr His Val Thr Asn Asp Cys  
   1                  5                  10                  15  
 Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr  
                   20                  25                  30  
 Pro Gly Cys Met Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
           35                  40                  45  
 Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Val Ser Val Pro Thr  
       50                  55                  60  
 Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
   65                  70                  75                  80  
 Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
                   85                  90                  95  
 Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
                   100                  105                  110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
           115                  120                  125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
       130                  135                  140  
 Gln Leu Leu Arg Ile Pro Gln Ala Ile Val Asp Met Val Ala Gly Ala  
   145                  150                  155                  160  
 His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
                   165                  170                  175  
 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
       180                  185                  190

<210> 67  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: IND5

<400> 67  
 Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
   1                  5                  10                  15  
 Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
                   20                  25                  30  
 Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ser Ser Arg Cys Trp  
           35                  40                  45  
 Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Ser Thr  
   50                  55                  60  
 Thr Thr Ile Arg His His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
   65                  70                  75                  80  
 Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
                   85                  90                  95  
 Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
                   100                  105                  110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
           115                  120                  125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
   130                  135                  140  
 Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
  145                  150                  155                  160  
 His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
                   165                  170                  175  
 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
           180                  185                  190

<210> 68  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: IND8

<400> 68  
Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15  
Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
20 25 30  
Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Phe Ser Ser Cys Trp  
35 40 45  
Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr  
50 55 60  
Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80  
Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95  
Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
100 105 110  
Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125  
Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140  
Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
145 150 155 160  
His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175  
Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190



<210> 69  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: P10

<400> 69  
 Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
   1                  5                  10                  15  
 Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
                   20                  25                  30  
 Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
           35                  40                  45  
 Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr  
       50                  55                  60  
 Thr Ala Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
   65                  70                  75                  80  
 Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Leu Leu Val  
                   85                  90                  95  
 Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Val Gln Asp  
           100                  105                  110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
       115                  120                  125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
       130                  135                  140  
 Gln Leu Leu Arg Ile Pro Gln Ala Ile Leu Asp Val Val Ala Gly Ala  
   145                  150                  155                  160  
 His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
           165                  170                  175  
 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
       180                  185                  190

<210> 70  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S9

<400> 70  
 Tyr Glu Val Arg Asn Val Ser Gly Ala Tyr His Val Thr Asn Asp Cys  
   1                  5                  10                  15  
 Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Val Ile Met His Thr  
                   20                  25                  30  
 Pro Gly Cys Val Pro Cys Val Gln Glu Gly Asn Ser Ser Gln Cys Trp  
                   35                  40                  45  
 Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Thr Val Pro Thr  
                   50                  55                  60  
 Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Val Phe  
   65                  70                  75                  80  
 Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile  
                   85                  90                  95  
 Ser Gln Leu Phe Thr Ile Ser Pro Arg Arg His Glu Thr Val Gln Asn  
                   100                  105                  110  
 Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala  
                   115                  120                  125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
                   130                  135                  140  
 Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala  
   145                  150                  155                  160  
 His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
                   165                  170                  175  
 Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly

<210> 71

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S45

<400> 71

Tyr Glu Val Arg Asn Val Ser Gly Ala Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Val Asp Val Ile Leu His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 72

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA10

<400> 72

Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ser Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg Tyr Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Arg Val Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Ile Val Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 73

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW2

<400> 73

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Ala Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Thr Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Val Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn

165	170	175
Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly		
180	185	190

<210> 74  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: T3

<400> 74

Tyr Glu Val Arg Asn Val Ser Gly Val Tyr Tyr Val Thr Asn Asp Cys			
1	5	10	15
Ser Asn Ser Ser Ile Val Tyr Glu Thr Ala Asp Met Ile Met His Thr			
20	25	30	
Pro Gly Cys Val Pro Cys Val Arg Glu Ser Asn Ser Ser Arg Cys Trp			
35	40	45	
Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr			
50	55	60	
Lys Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe			
65	70	75	80
Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val			
85	90	95	
Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Val Gln Asp			
100	105	110	
Cys Asn Cys Ser Ile Tyr Pro Gly His Val Thr Gly His Arg Met Ala			
115	120	125	
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser			
130	135	140	
Gln Leu Leu Arg Ile Pro Gln Ala Val Val Asp Met Val Ala Gly Ala			
145	150	155	160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 75  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: T10

<400> 75  
Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Phe Glu Ala Ala Asp Leu Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Thr Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Ala Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Arg His Glu Thr Leu Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Leu Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Thr Gly Ala  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Ala Gly Asn  
165 170 175

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

<210> 76  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: US6

<400> 76  
Tyr Glu Val Arg Asn Val Ser Gly Met Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Met Ile Met His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Asn Asn Ser Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Leu Ala Ala Arg Asn Ala Ser Val Pro Thr  
50 55 60

Thr Thr Ile Arg Arg His Val Asp Leu Leu Val Gly Ala Ala Thr Phe  
65 70 75 80

Cys Ser Ala Met Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Ile  
85 90 95

Ser Gln Leu Phe Thr Phe Ser Pro Arg Gln His Glu Thr Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ser  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Ala Val Met Asp Met Val Ala Gly Ala



145	150	155	160
His Trp Gly Val Leu Ala Gly Leu Ala Tyr Tyr Ser Met Val Gly Asn			
	165	170	175
Trp Ala Lys Val Leu Ile Val Leu Leu Leu Phe Ala Gly Val Asp Gly			
	180	185	190

<210> 77  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: T2

<400> 77

Ala Gln Val Arg Asn Thr Ser Arg Gly Tyr Met Val Thr Asn Asp Cys			
1	5	10	15
Ser Asn Glu Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val			
	20	25	30
Pro Gly Cys Ile Pro Cys Glu Arg Leu Gly Asn Thr Ser Arg Cys Trp			
	35	40	45
Ile Pro Val Thr Pro Asn Val Ala Val Arg Gln Pro Gly Ala Leu Thr			
	50	55	60
Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu			
	65	70	75
Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala			
	85	90	95
Ala Gln Met Phe Ile Val Ser Pro Arg Arg His Trp Phe Val Gln Glu			
	100	105	110
Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala			
	115	120	125
Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Thr Met Ile Leu Ala			
	130	135	140

Tyr Ala Met Arg Val Pro Glu Val Ile Ile Asp Ile Ile Gly Gly Ala  
 145 150 155 160

His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala  
 165 170 175

Trp Ala Lys Val Ile Val Ile Leu Leu Leu Ala Ala Gly Val Asp Ala  
 180 185 190

<210> 78

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T4

<400> 78

Ala Gln Val Lys Asn Thr Thr Asn Ser Tyr Met Val Thr Asn Asp Cys  
 1 5 10 15

Ser Asn Asp Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val  
 20 25 30

Pro Gly Cys Val Pro Cys Glu Lys Thr Gly Asn Thr Ser Arg Cys Trp  
 35 40 45

Ile Pro Val Ser Pro Asn Val Ala Val Arg Gln Pro Gly Ala Leu Thr  
 50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu  
 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala  
 85 90 95

Ala Gln Met Phe Ile Val Ser Pro Gln His His Trp Phe Val Gln Asp  
 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala  
 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Thr Met Ile Leu Ala  
 130 135 140

Tyr Ala Met Arg Val Pro Glu Val Ile Leu Asp Ile Val Ser Gly Ala  
 145 150 155 160

His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala  
 165 170 175

Trp Ala Lys Val Val Val Ile Leu Leu Leu Ala Ala Gly Val Asp Ala  
 180 185 190

<210> 79

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 79

Ala Glu Val Lys Asn Thr Ser Thr Ser Tyr Met Val Thr Asn Asp Cys  
 1 5 10 15

Ser Asn Asp Ser Ile Thr Trp Gln Leu Gln Ala Ala Val Leu His Val  
 20 25 30

Pro Gly Cys Val Pro Cys Glu Arg Val Gly Asn Ala Ser Arg Cys Trp  
 35 40 45

Ile Pro Val Ser Pro Asn Val Ala Val Gln Arg Pro Gly Ala Leu Thr  
 50 55 60

Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu  
 65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Val Met Leu Ala  
 85 90 95

Ala Gln Met Phe Ile Ile Ser Pro Gln His His Trp Phe Val Gln Glu  
 100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala  
 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Met Ile Leu Ala

130	135	140
Tyr Ala Met Arg Val Pro Glu Val Ile Ile Asp Ile Ile Ser Gly Ala		
145	150	155 160
His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala		
	165	170 175
Trp Ala Lys Val Val Val Ile Leu Leu Leu Thr Ala Gly Val Asp Ala		
	180	185 190

<210> 80  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: US10

<400> 80  
 Val Gln Val Lys Asn Thr Ser Thr Ser Tyr Met Val Thr Asn Asp Cys  
 1 5 10 15  
 Ser Asn Asp Ser Ile Thr Trp Gln Leu Glu Ala Ala Val Leu His Val  
 20 25 30  
 Pro Gly Cys Val Pro Cys Glu Lys Val Gly Asn Thr Ser Arg Cys Trp  
 35 40 45  
 Ile Pro Val Ser Pro Asn Val Ala Val Gln Arg Pro Gly Ala Leu Thr  
 50 55 60  
 Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr Leu  
 65 70 75 80  
 Cys Ser Ala Leu Tyr Val Gly Asp Phe Cys Gly Gly Met Met Leu Ala  
 85 90 95  
 Ala Gln Met Phe Ile Val Ser Pro Arg His His Ser Phe Val Gln Glu  
 100 105 110  
 Cys Asn Cys Ser Ile Tyr Pro Gly Thr Ile Thr Gly His Arg Met Ala  
 115 120 125

Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Ala	Thr	Leu	Ile	Leu	Ala
130						135					140				
Tyr	Val	Met	Arg	Val	Pro	Glu	Val	Ile	Ile	Asp	Ile	Ile	Ser	Gly	Ala
145					150					155				160	
His	Trp	Gly	Val	Leu	Phe	Gly	Leu	Ala	Tyr	Phe	Ser	Met	Gln	Gly	Ala
			165						170					175	
Trp	Ala	Lys	Val	Val	Val	Ile	Leu	Leu	Leu	Ala	Ala	Gly	Val	Asp	Ala
		180						185					190		

<210> 81  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: DK8

<400> 81

Val	Glu	Val	Arg	Asn	Ile	Ser	Ser	Ser	Tyr	Tyr	Ala	Thr	Asn	Asp	Cys
1				5					10					15	
Ser	Asn	Asn	Ser	Ile	Thr	Trp	Gln	Leu	Thr	Asp	Ala	Val	Leu	His	Leu
			20					25					30		
Pro	Gly	Cys	Val	Pro	Cys	Glu	Asn	Asp	Asn	Gly	Thr	Leu	Arg	Cys	Trp
		35					40					45			
Ile	Gln	Val	Thr	Pro	Asn	Val	Ala	Val	Lys	His	Arg	Gly	Ala	Leu	Thr
	50					55					60				
His	Asn	Leu	Arg	Thr	His	Val	Asp	Val	Ile	Val	Met	Ala	Ala	Thr	Val
65					70					75					80
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Val	Cys	Gly	Ala	Val	Met	Ile	Val
			85						90					95	
Ser	Gln	Ala	Leu	Ile	Ile	Ser	Pro	Glu	Arg	His	Asn	Phe	Thr	Gln	Glu
			100					105						110	
Cys	Asn	Cys	Ser	Ile	Tyr	Gln	Gly	His	Ile	Thr	Gly	His	Arg	Met	Ala
	115						120					125			

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala  
130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Ala Leu Gln Val Val Phe Gly Gly  
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala  
165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala  
180 185 190

<210> 82

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK11

<400> 82

Val Glu Val Arg Asn Thr Ser Ser Ser Tyr Tyr Ala Thr Asn Asp Cys  
1 5 10 15

Ser Asn Asn Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu  
20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu His Cys Trp  
35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr  
50 55 60

His Asn Leu Arg Ala His Ile Asp Met Ile Val Met Ala Ala Thr Val  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Met Ile Val  
85 90 95

Ser Gln Ala Phe Ile Val Ser Pro Glu His His His Phe Thr Gln Glu  
100 105 110

Cys Asn Cys Ser Ile Tyr Gln Gly His Ile Thr Gly His Arg Met Ala

115	120	125
Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala		
130	135	140
Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly		
145	150	155 160
His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala		
	165 170	175
Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala		
180	185	190

<210> 83  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: SW3

<400> 83  
 Val Glu Val Arg Asn Ile Ser Ser Ser Tyr Tyr Ala Thr Asn Asp Cys  
 1 5 10 15  
 Ser Asn Ser Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu  
 20 25 30  
 Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu His Cys Trp  
 35 40 45  
 Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr  
 50 55 60  
 His Asn Leu Arg Ala His Val Asp Met Ile Val Met Ala Ala Thr Val  
 65 70 75 80  
 Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Met Ile Val  
 85 90 95  
 Ser Gln Ala Phe Ile Ile Ser Pro Glu Arg His Asn Phe Thr Gln Glu  
 100 105 110

Cys Asn Cys Ser Ile Tyr Gln Gly Arg Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala  
130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly  
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala  
165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala  
180 185 190

<210> 84

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T8

<400> 84

Val Glu Val Arg Asn Thr Ser Phe Ser Tyr Tyr Ala Thr Asn Asp Cys  
1 5 10 15

Ser Asn Asn Ser Ile Thr Trp Gln Leu Thr Asn Ala Val Leu His Leu  
20 25 30

Pro Gly Cys Val Pro Cys Glu Asn Asp Asn Gly Thr Leu Arg Cys Trp  
35 40 45

Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu Thr  
50 55 60

His Asn Leu Arg Thr His Val Asp Val Ile Val Met Ala Ala Thr Val  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Met Ile Ala  
85 90 95

Ser Gln Ala Phe Ile Ile Ser Pro Glu Arg His Asn Phe Thr Gln Glu  
100 105 110



Cys Asn Cys Ser Ile Tyr Gln Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Leu Asn Trp Ser Pro Thr Leu Thr Met Ile Leu Ala  
130 135 140

Tyr Ala Ala Arg Val Pro Glu Leu Val Leu Glu Val Val Phe Gly Gly  
145 150 155 160

His Trp Gly Val Val Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ala  
165 170 175

Trp Ala Lys Val Ile Ala Ile Leu Leu Leu Val Ala Gly Val Asp Ala  
180 185 190

<210> 85

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S83

<400> 85

Val Glu Val Lys Asp Thr Gly Asp Ser Tyr Met Pro Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Trp Gln Leu Glu Gly Ala Val Leu His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Glu Arg Thr Ala Asn Val Ser Arg Cys Trp  
35 40 45

Val Pro Val Ala Pro Asn Leu Ala Ile Ser Gln Pro Gly Ala Leu Thr  
50 55 60

Lys Gly Leu Arg Ala His Ile Asp Ile Ile Val Met Ser Ala Thr Val  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Leu Met Leu Ala  
85 90 95

Ala Gln Val Val Val Val Ser Pro Gln His His Thr Phe Val Gln Glu

100	105	110
Cys Asn Cys Ser Ile Tyr Pro Gly Arg Ile Thr Gly His Arg Met Ala		
115	120	125
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Met Leu Leu Ala		
130	135	140
Tyr Leu Val Arg Ile Pro Glu Val Ile Leu Asp Ile Val Thr Gly Gly		
145	150	155 160
His Trp Gly Val Met Phe Gly Leu Ala Tyr Phe Ser Met Gln Gly Ser		
165	170	175
Trp Ala Lys Val Ile Val Ile Leu Leu Leu Thr Ala Gly Val Glu Ala		
180	185	190

<210> 86  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: DK12

<400> 86  
 Leu Glu Trp Arg Asn Val Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys  
 1 5 10 15  
 Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr  
 20 25 30  
 Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp  
 35 40 45  
 Thr Ser Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr  
 50 55 60  
 Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Met  
 65 70 75 80  
 Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Val Phe Leu Val  
 85 90 95

Gly	Gln	Ala	Phe	Thr	Phe	Arg	Pro	Arg	Arg	His	Gln	Thr	Val	Gln	Thr
			100					105					110		
Cys	Asn	Cys	Ser	Leu	Tyr	Pro	Gly	His	Leu	Ser	Gly	His	Arg	Met	Ala
		115					120					125			
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Ala	Val	Gly	Met	Val	Val	Ala
	130					135					140				
His	Val	Leu	Arg	Leu	Pro	Gln	Thr	Leu	Phe	Asp	Ile	Ile	Ala	Gly	Ala
145					150					155					160
His	Trp	Gly	Ile	Met	Ala	Gly	Leu	Ala	Tyr	Tyr	Ser	Met	Gln	Gly	Asn
				165					170					175	
Trp	Ala	Lys	Val	Ala	Ile	Ile	Met	Val	Met	Phe	Ser	Gly	Val	Asp	Ala
		180						185					190		

<210> 87

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 87

Leu	Glu	Trp	Arg	Asn	Val	Ser	Gly	Leu	Tyr	Val	Leu	Thr	Asn	Asp	Cys
1				5					10					15	
Pro	Asn	Ser	Ser	Ile	Val	Tyr	Glu	Ala	Asp	Asp	Val	Ile	Leu	His	Thr
			20					25					30		
Pro	Gly	Cys	Val	Pro	Cys	Val	Gln	Asp	Gly	Asn	Thr	Ser	Thr	Cys	Trp
		35					40					45			
Thr	Ser	Val	Thr	Pro	Thr	Val	Ala	Val	Arg	Tyr	Val	Gly	Ala	Thr	Thr
	50					55					60				
Ala	Ser	Ile	Arg	Ser	His	Val	Asp	Leu	Leu	Val	Gly	Ala	Ala	Thr	Met
65					70					75					80
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Met	Cys	Gly	Ala	Val	Phe	Leu	Val
				85					90					95	

Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr  
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala  
130 135 140

His Val Leu Arg Leu Pro Gln Thr Leu Phe Asp Ile Ile Ala Gly Ala  
145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn  
165 170 175

Trp Ala Lys Val Ala Ile Ile Met Val Met Phe Ser Gly Val Asp Ala  
180 185 190

<210> 88  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: S2

<400> 88  
Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys  
1 5 10 15

Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr  
20 25 30

Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp  
35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr  
50 55 60

Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Met  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val

	85		90		95
Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr					
	100		105		110
Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala					
	115		120		125
Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala					
	130		135		140
His Val Leu Arg Leu Pro Gln Thr Val Phe Asp Ile Ile Ala Gly Ala					
	145		150		155
					160
His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn					
			165		170
					175
Trp Ala Lys Val Ala Ile Ile Met Val Met Phe Ser Gly Val Asp Ala					
			180		185
					190

<210> 89  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S52

<400> 89

Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Val Leu Thr Asn Asp Cys					
1		5		10	15
Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr					
	20		25		30
Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Met Cys Trp					
	35		40		45
Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr					
	50		55		60
Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Leu					
	65		70		75
					80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val  
                     85                    90                    95  
 Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr  
                     100                    105                    110  
 Cys Asn Cys Ser Leu Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
                     115                    120                    125  
 Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala  
                     130                    135                    140  
 His Ile Leu Arg Leu Pro Gln Thr Leu Phe Asp Ile Leu Ala Gly Ala  
 145                    150                    155                    160  
 His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn  
                     165                    170                    175  
 Trp Ala Lys Val Ala Ile Val Met Ile Met Phe Ser Gly Val Asp Ala  
                     180                    185                    190

<210> 90  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S54

<400> 90  
 Leu Glu Trp Arg Asn Thr Ser Gly Leu Tyr Ile Leu Thr Asn Asp Cys  
   1                    5                    10                    15  
 Ser Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Val Ile Leu His Thr  
                     20                    25                    30  
 Pro Gly Cys Val Pro Cys Val Gln Asp Gly Asn Thr Ser Thr Cys Trp  
                     35                    40                    45  
 Thr Pro Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr Thr  
                     50                    55                    60  
 Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr Leu  
   65                    70                    75                    80

Cys Ser Ala Leu Tyr Val Gly Asp Met Cys Gly Ala Val Phe Leu Val  
85 90 95

Gly Gln Ala Phe Thr Phe Arg Pro Arg Arg His Gln Thr Val Gln Thr  
100 105 110

Cys Asn Cys Ser Leu Tyr Pro Gly His Leu Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Ala Val Gly Met Val Val Ala  
130 135 140

His Ile Leu Arg Leu Pro Gln Thr Leu Phe Asp Ile Leu Ala Gly Ala  
145 150 155 160

His Trp Gly Ile Leu Ala Gly Leu Ala Tyr Tyr Ser Met Gln Gly Asn  
165 170 175

Trp Ala Lys Val Ala Ile Ile Met Ile Met Phe Ser Gly Val Asp Ala  
180 185 190

<210> 91  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: Z4

<400> 91  
Glu His Tyr Arg Asn Ala Ser Gly Ile Tyr His Ile Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp His His Ile Leu His Leu  
20 25 30

Pro Gly Cys Val Pro Cys Val Met Thr Gly Asn Thr Ser Arg Cys Trp  
35 40 45

Thr Pro Val Thr Pro Thr Val Ala Val Ala His Pro Gly Ala Pro Leu  
50 55 60

Glu Ser Phe Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Leu

65		70		75		80
Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Ala Phe Leu Met						
	85		90		95	
Gly Gln Met Ile Thr Phe Arg Pro Arg Arg His Trp Thr Thr Gln Glu						
	100		105		110	
Cys Asn Cys Ser Ile Tyr Thr Gly His Ile Thr Gly His Arg Met Ala						
	115		120		125	
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Leu Leu Ala						
	130		135		140	
Gln Ile Met Arg Val Pro Thr Ala Phe Leu Asp Met Val Ala Gly Gly						
145		150		155		160
His Trp Gly Val Leu Ala Gly Leu Ala Tyr Phe Ser Met Gln Gly Asn						
	165		170		175	
Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala						
	180		185		190	

<210> 92  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: Z1

<400> 92  
 Val His Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys  
 1 5 10 15  
 Pro Asn Thr Ser Ile Val Tyr Glu Thr Glu His His Ile Met His Leu  
 20 25 30  
 Pro Gly Cys Val Pro Cys Val Arg Thr Glu Asn Thr Ser Arg Cys Trp  
 35 40 45  
 Val Pro Leu Thr Pro Thr Val Ala Ala Pro Tyr Pro Asn Ala Pro Leu  
 50 55 60



Glu Ser Met Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Met  
65 70 75 80

Cys Ser Ala Phe Tyr Ile Gly Asp Leu Cys Gly Gly Val Phe Leu Val  
85 90 95

Gly Gln Leu Phe Asp Phe Arg Pro Arg Arg His Trp Thr Thr Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Pro Gly His Val Ser Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ser Ala Leu Ile Met Ala  
130 135 140

Gln Ile Leu Arg Ile Pro Ser Ile Leu Gly Asp Leu Leu Thr Gly Gly  
145 150 155 160

His Trp Gly Val Leu Ala Gly Leu Ala Phe Phe Ser Met Gln Ser Asn  
165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Glu Gly  
180 185 190

<210> 93  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: Z6

<400> 93  
Val Asn Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Glu His Gln Ile Leu His Leu  
20 25 30

Pro Gly Cys Leu Pro Cys Val Arg Val Gly Asn Gln Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Val Ala Val Ser Tyr Ile Gly Ala Pro Leu  
50 55 60

Asp Ser Leu Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Val  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly Gly Ala Phe Leu Val  
85 90 95

Gly Gln Met Phe Ser Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Ala Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Leu Leu Ala  
130 135 140

Gln Val Met Arg Ile Pro Ser Thr Leu Val Asp Leu Leu Ala Gly Gly  
145 150 155 160

His Trp Gly Val Leu Val Gly Leu Ala Tyr Phe Ser Met Gln Ala Asn  
165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala  
180 185 190

<210> 94

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z7

<400> 94

Val Asn Tyr His Asn Ala Ser Gly Val Tyr His Ile Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Met Tyr Glu Ala Glu His His Ile Leu His Leu  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Gln Ser Arg Cys Trp  
35 40 45

Val Ala Leu Thr Pro Thr Val Ala Ala Pro Tyr Ile Gly Ala Pro Leu

50		55		60
Glu Ser Ile Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr Val				
65		70		75
				80
Cys Ser Ala Leu Tyr Ile Gly Asp Leu Cys Gly Gly Val Phe Leu Val				
	85		90	95
Gly Gln Met Phe Ser Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp				
	100		105	110
Cys Asn Cys Ser Ile Tyr Ala Gly His Val Thr Gly His Arg Met Ala				
	115		120	125
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Val Leu Ala				
	130		135	140
Gln Val Met Arg Ile Pro Ser Thr Leu Val Asp Leu Leu Thr Gly Gly				
145		150		155
				160
His Trp Gly Ile Leu Ile Gly Val Ala Tyr Phe Cys Met Gln Ala Asn				
	165		170	175
Trp Ala Lys Val Ile Leu Val Leu Phe Leu Tyr Ala Gly Val Asp Ala				
	180		185	190

<210> 95

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK13

<400> 95

Tyr Asn Tyr Arg Asn Ser Ser Gly Val Tyr His Val Thr Asn Asp Cys
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Thr Asp Tyr His Ile Leu His Leu
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Glu Gly Asn Lys Ser Thr Cys Trp
35 40 45

Val Ser Leu Thr Pro Thr Val Ala Ala Gln His Leu Asn Ala Pro Leu  
50 55 60

Glu Ser Leu Arg Arg His Val Asp Leu Met Val Gly Gly Ala Thr Leu  
65 70 75 80

Cys Ser Ala Leu Tyr Ile Gly Asp Val Cys Gly Gly Val Phe Leu Val  
85 90 95

Gly Gln Leu Phe Thr Phe Gln Pro Arg Arg His Trp Thr Thr Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Thr Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Thr Leu Val Leu Ala  
130 135 140

Gln Leu Met Arg Ile Pro Gly Ala Met Val Asp Leu Leu Ala Gly Gly  
145 150 155 160

His Trp Gly Ile Leu Val Gly Ile Ala Tyr Phe Ser Met Gln Ala Asn  
165 170 175

Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala  
180 185 190

<210> 96  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA1

<400> 96  
Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Ser Leu Ile Leu His Ala  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Asp Asn Val Ser Arg Cys Trp  
35 40 45

Val	Gln	Ile	Thr	Pro	Thr	Leu	Ser	Ala	Pro	Thr	Phe	Gly	Ala	Val	Thr
50						55					60				
Ala	Pro	Leu	Arg	Arg	Ala	Val	Asp	Tyr	Leu	Ala	Gly	Gly	Ala	Ala	Leu
65					70				75					80	
Cys	Ser	Ala	Leu	Tyr	Val	Gly	Asp	Ala	Cys	Gly	Ala	Val	Phe	Leu	Val
			85					90						95	
Gly	Gln	Met	Phe	Thr	Tyr	Arg	Pro	Arg	Gln	His	Thr	Thr	Val	Gln	Asp
		100					105						110		
Cys	Asn	Cys	Ser	Ile	Tyr	Ser	Gly	His	Ile	Thr	Gly	His	Arg	Met	Ala
	115						120					125			
Trp	Asp	Met	Met	Met	Asn	Trp	Ser	Pro	Thr	Thr	Ala	Leu	Leu	Met	Ala
	130					135					140				
Gln	Met	Leu	Arg	Ile	Pro	Gln	Val	Val	Ile	Asp	Ile	Ile	Ala	Gly	Gly
145				150					155					160	
His	Trp	Gly	Val	Leu	Phe	Ala	Ala	Ala	Tyr	Phe	Ala	Ser	Ala	Ala	Asn
			165						170					175	
Trp	Ala	Lys	Val	Val	Leu	Val	Leu	Phe	Leu	Phe	Ala	Gly	Val	Asp	Gly
		180					185						190		

<210> 97  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: SA4

<400> 97

Val	Pro	Tyr	Arg	Asn	Ala	Ser	Gly	Val	Tyr	His	Val	Thr	Asn	Asp	Cys
1				5					10					15	
Pro	Asn	Ser	Ser	Ile	Val	Tyr	Glu	Ala	Asp	Asn	Leu	Ile	Leu	His	Ala
			20					25					30		
Pro	Gly	Cys	Val	Pro	Cys	Val	Arg	Gln	Asp	Asn	Val	Ser	Lys	Cys	Trp

35	40	45
Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr		
50	55	60
Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu		
65	70	75 80
Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val		
85	90	95
Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp		
100	105	110
Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala		
115	120	125
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Leu Met Ala		
130	135	140
Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly		
145	150	155 160
His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn		
165	170	175
Trp Ala Lys Val Ile Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala		
180	185	190

<210> 98  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: SA5

<400> 98

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys
1 5 10 15
Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asn Leu Ile Leu His Ala
20 25 30

Pro Gly Cys Val Pro Cys Val Lys Glu Gly Asn Val Ser Arg Cys Trp  
           35                    40                    45  
 Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr  
           50                    55                    60  
 Ala Pro Leu Arg Arg Val Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu  
           65                    70                    75                    80  
 Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val  
                                 85                    90                    95  
 Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp  
                     100                    105                    110  
 Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala  
                     115                    120                    125  
 Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala  
           130                    135                    140  
 Gln Val Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly  
           145                    150                    155                    160  
 His Trp Gly Val Leu Phe Ala Val Ala Tyr Phe Ala Ser Ala Ala Asn  
                     165                    170                    175  
 Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Gly  
                     180                    185                    190

<210> 99  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: SA6

<400> 99  
 Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys  
       1                    5                    10                    15  
 Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Leu Ile Leu His Ala  
           20                    25                    30

Pro Gly Cys Val Pro Cys Val Arg Lys Asp Asn Val Ser Arg Cys Trp  
           35                          40                          45  
  
 Val His Ile Thr Pro Thr Leu Ser Ala Pro Ser Leu Gly Ala Val Thr  
           50                          55                          60  
  
 Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu  
           65                          70                          75                          80  
  
 Cys Ser Ala Leu Tyr Val Gly Asp Val Cys Gly Ala Leu Phe Leu Val  
                           85                          90                          95  
  
 Gly Gln Met Phe Thr Tyr Arg Pro Arg Gln His Ala Thr Val Gln Asp  
                           100                          105                          110  
  
 Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala  
           115                          120                          125  
  
 Trp Asp Met Met Met Asn Trp Ser Pro Ala Thr Ala Leu Val Met Ala  
           130                          135                          140  
  
 Gln Met Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly  
           145                          150                          155                          160  
  
 His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn  
                           165                          170                          175  
  
 Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala  
           180                          185                          190

<210> 100

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA7

<400> 100

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys  
       1                          5                          10                          15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asn Leu Ile Leu His Ala



20	25	30
Pro Gly Cys Val Pro Cys Val Arg Gln Asn Asn Val Ser Arg Cys Trp		
35	40	45
Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Asn Leu Gly Ala Val Thr		
50	55	60
Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu		
65	70	75
Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val		
85	90	95
Gly Gln Met Phe Ser Tyr Arg Pro Arg Gln His Thr Thr Val Gln Asp		
100	105	110
Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala		
115	120	125
Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala		
130	135	140
Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Gly		
145	150	155
His Trp Gly Val Leu Phe Ala Ala Ala Tyr Phe Ala Ser Ala Ala Asn		
165	170	175
Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala		
180	185	190

<210> 101

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA13

<400> 101

Val Pro Tyr Arg Asn Ala Ser Gly Val Tyr His Val Thr Asn Asp Cys
1 5 10 15

Pro Asn Ser Ser Ile Val Tyr Glu Ala Asp Asp Leu Ile Leu His Ala  
20 25 30

Pro Gly Cys Val Pro Cys Val Arg Gln Gly Asn Val Ser Arg Cys Trp  
35 40 45

Val Gln Ile Thr Pro Thr Leu Ser Ala Pro Ser Leu Gly Ala Val Thr  
50 55 60

Ala Pro Leu Arg Arg Ala Val Asp Tyr Leu Ala Gly Gly Ala Ala Leu  
65 70 75 80

Cys Ser Ala Leu Tyr Val Gly Asp Ala Cys Gly Ala Val Phe Leu Val  
85 90 95

Gly Gln Met Phe Thr Tyr Ser Pro Arg Arg His Asn Val Val Gln Asp  
100 105 110

Cys Asn Cys Ser Ile Tyr Ser Gly His Ile Thr Gly His Arg Met Ala  
115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Ala Leu Val Met Ala  
130 135 140

Gln Leu Leu Arg Ile Pro Gln Val Val Ile Asp Ile Ile Ala Gly Ala  
145 150 155 160

His Trp Gly Val Leu Phe Ala Ala Ala Tyr Tyr Ala Ser Ala Ala Asn  
165 170 175

Trp Ala Lys Val Val Leu Val Leu Phe Leu Phe Ala Gly Val Asp Ala  
180 185 190

<210> 102

<211> 192

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK2

<400> 102

Leu Thr Tyr Gln Asn Ser Ser Gln Leu Tyr His Leu Thr Asn Asp Cys  
1 5 10 15

Pro Asn Ser Ser Ile Val Leu Glu Ala Asp Ala Met Ile Leu His Leu  
 20 25 30

Pro Gln Cys Leu Pro Cys Val Arg Val Asp Asp Arg Ser Thr Cys Trp  
 35 40 45

His Ala Val Thr Pro Thr Leu Ala Ile Pro Asn Ala Ser Thr Pro Ala  
 50 55 60

Thr Gln Phe Arg Arg His Val Asp Leu Leu Ala Gln Ala Ala Val Val  
 65 70 75 80

Cys Ser Ser Leu Tyr Ile Gln Asp Leu Cys Gln Ser Leu Phe Leu Ala  
 85 90 95

Gln Gln Leu Phe Thr Phe Gln Pro Arg Arg His Trp Thr Val Gln Asp  
 100 105 110

Cys Asn Cys Ser Ile Tyr Thr Gln His Val Thr Gln His Arg Met Ala  
 115 120 125

Trp Asp Met Met Met Asn Trp Ser Pro Thr Thr Thr Leu Val Leu Ser  
 130 135 140

Ser Ile Leu Arg Val Pro Glu Ile Cys Ala Ser Val Ile Phe Gln Gln  
 145 150 155 160

His Trp Gln Ile Leu Leu Ala Val Ala Tyr Phe Gln Met Ala Gln Asn  
 165 170 175

Trp Leu Lys Val Leu Ala Val Leu Phe Leu Phe Ala Gln Val Glu Ala  
 180 185 190

<210> 103

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK7

<400> 103

atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60

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gacgtcaagt tcccgggtgg cggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgccgagg aagacttccg agcggtcgca acctcgaggt 180
agacgtcagc ctatcccaa ggcacgtcgg cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcgggtggg cgggatggct cctgtctccc 300
cgtggctctc ggcctagctg gggccccaca gacccccggc gcaggtcgcg caatttgggt 360
aaagtcatcg atacccttac gtgcggcttc gccgacctca tggggtacat accgctcgtc 420
ggcgccccctc ttggaggcgc tgccagggcc ctggcgcgatg gcgtccgggt tctggaagac 480
ggcgtgaact atgcaacagg gaaccttcct ggttgctctt tctctatctt ccttttggcc 540
ctgctctctt gcctgaccgt gcccgttcg gcc 573

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<210> 104

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: US11

<400> 104

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atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60
gacgtcaagt tcccgggtgg cggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgaggt 180
agacgtcagc ctatcccaa ggcacgtcgg cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcgggtggg cgggatggct cctgtctccc 300
cgtggctctc ggcctagctg gggccccacg gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg atacccttac gtgcggcttc gccgacctca tggggtacat accgctcgtc 420
ggcgccccctc tcggaggcgc tgccagggcc ctggcgcgatg gcgtccgggt tctggaagac 480
ggcgtgaact atgcaacagg gaaccttcct ggttgctctt tctctatctt ccttctggcc 540
ctgctctctt gcctgactgt gcccgttcga gcc 573

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<210> 105

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S14

<400> 105

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atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60
gacgtcaagt tcccgggtgg cggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgaggt 180
agacgtcagc ctatcccaa ggcacgtcgg cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcgggtggg cgggatggct cctgtctccc 300
cgtggctctc ggcctagctg gggccccaca gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg ataccctcac gtgcggcttc gccgacctca tggggtacat accgctcgtc 420

```

```

ggcgcccccc tcggggggcg tgccagggcc ctggcgcatg gcgtccgggt tctggaagac 480
ggcgtgaact atgcaacagg gaaccttcct gggtgtctct tctctatctt cctcctagcc 540
ctgctttctt gcctgactgt gcccgcctca gcc 573

```

```

<210> 106
<211> 573
<212> DNA
<213> Homo sapiens

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```

<220>
<223> Individual Isolate: SW1

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<400> 106
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60
gacgtcaagt tcccgggtgg cggtcagatc gttggtggag ttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgaggt 180
agacgtcagc ctatcccaa ggcgcgtcgg cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcggatggg cgggatggct cctgtcccc 300
cgtggctctc ggcctagctg gggccctaca gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg ataccctcac gtgcggcttc gccgacctca tggggtacat tccgctcgct 420
ggcgccccctc ttggaggcgc tgccagggcc ctggcgcatg gcgtccgggt tctggaagac 480
ggcgtgaact atgcaacagg gaaccttcct gggtgtctct tctctatctt ccttctggcc 540
ctgctttctt gcctgacagt gcccgcgtca gcc 573

```

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<210> 107
<211> 573
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> Individual Isolate: S18

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```

<400> 107
atgagcacia atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60
gacgttaagt tcccgggtgg cggtcagatc gttggtggag ttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgcggt 180
agacgtcagc ctatcccaa ggcgcgtcgg cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcgggtggg cgggatggct cctgtcccc 300
cgtggctccc ggcctagctg gggccctaca gacccccggc gtaggtcgcg caatttgggc 360
aaagtcatcg ataccctcac gtgcggcttc gccgacctca tggggtacat tccgctcgct 420
ggcgccccctc tcggaggcgc tgccagggcc ctggcgcatg gcgtccgggt tctggaagac 480
ggcgtgaact atgcaacagg gaaccttcct gggtgtctct tctctatctt ccttctggcc 540
ctgtctctct gtctgactgt gcccgcgtca gct 573

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<210> 108

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<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: DR4

<400> 108  
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgcccacag 60  
gacgtcaagt tcccgggtgg cggtcagatc gttggtggag tttacttggt gccgcgcagg 120  
ggccctagat tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgaggt 180  
agacgtcagc ctatcccaa ggcgcgtcgg cccgagggca ggacctgggc tcagcccggg 240  
tacccttggc ccctctatgg caatgagggc tgcgggtggg cgggatggct cctgtccccc 300  
cgtggctctc ggcctagctg gggccccaca gacccccggc gtaggtcgcg caatttgggt 360  
aaggtcatcg acaccctcac gtgcggcttc gccgacctca tggggtacat cccgctcgtc 420  
ggcgcccccc ttggggggcg tgccagggcc ctggcgcatg gcgtccgagt tctggaagac 480  
ggcgtgaact atgcaacagg gaatcttctt ggttgctctt tctctatctt ccttttgggt 540  
ttgctctctt gcttgaccgt gcccgcatcg gcc 573

<210> 109  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA10

<400> 109  
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60  
gacgtcaagt tcccgggcgg tggtcagatc gttggtggag tctatctgtt gccgcgcagg 120  
ggccccagggt tgggtgtgcg cgcgacgagg aagacttccg agcggtcgca acctcgtgga 180  
aggcgacaac ctatcccaa ggctcgccag cccgagggca ggacctgggc ccagcccggg 240  
tacccttggc ccctctatgg caatgagggc ttgggggtggg caggatggct cctgtcacc 300  
cgtggctctc ggcctagtgt gggccccacg gacccccggc gtaggtcgcg taatttgggt 360  
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420  
ggcgccccct tagggggcg tgccagggcc ttggcgcatg gcgtccgggt tctggaagac 480  
ggcgtgaact atgcaacagg gaatttgccc ggttgccctt tctctatctt cctcttgggt 540  
ttgctgtcct gtttaaccat cccagcttcc gct 573

<210> 110  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: S45

<400> 110

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atgagcacga atcctaaacc tcaaagacaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggtgg cggtcagatc gttggtggag tttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcaca acctcgtgga 180
cggcgacaac ctatcccaa ggctcgccgg cccgagggca gggcctgggc ccagcccggg 240
catccttggc ccctctatgg caatgagggc ttgggggtggg caggatggct cctgtcaccc 300
cgtggctccc ggcctagtgtg gggccccacg gacccccggc gtaggtcgcg caatttgggt 360
aaggatcatc ataccctcac gtgcggcttc gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgc tgccagagcc ttggcgcagt gcgtccgggt tctggaggac 480
ggcgtgaact atgcaacagg gaattctgcc ggttgcctct tctctatctt cctcttgggt 540
ctgctgtcct gcttgaccat cccagcttcc gct 573
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<210> 111

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: D1

<400> 111

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atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccggggcg tggtcagatc gttggtggag tttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggta gggcctgggc tcagcccggg 240
tacccttggc ccctctatgg caacgagggc ttgggggtggg caggatggct cctgtcaccc 300
cgcggtcccc ggcctagtgtg gggccccacc gacccccggc gtaggtcgcg taatttgggt 360
aaggatcatc ataccctcac atgcggcttc gccgacctca tggggtacat cccgctcgtc 420
ggcgcccccc tagggggtgc tgccagggcc ctggcgcagt gcgtccgggt tctggaggac 480
ggcgtgaatt atgcaacagg gaatttggcc ggttgcctct tctctatctt cctcttgggt 540
ttgctgtcct gtttgaccat cccagcttcc gct 573
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<210> 112

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: US6

<400> 112

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atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccggggcg tggtcagatc gttggtggag tttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggca gggcctgggc tcagcccggg 240
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```
tacccttggc ccctctatgg caacgagggc atgggggtggg caggatggct cctgtcaccc 300
cgtggctccc ggctagttg gggccccacg gacccccggc gtaggtcgcg taatttgggt 360
aaggtcatcg ataccctcac atgcggttc gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgc tgccagggcc ttggcgcgcatg gcgtccgggt tctggaggac 480
ggcgtgaact atgcaacagg gaacttgccc gggtgtctct tctctatctt cctcttgggt 540
ttgctgtcct gtttgaccat tccagcttcc gct 573
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<210> 113

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: P10

<400> 113

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atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggcgg tggtcagatc gttgggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggca gggcctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc ttgggggtggg caggatggct cctgtcaccc 300
cgtggctctc ggctagttg gggccccacg gacccccggc gtaggtcgcg taatttgggt 360
aaggtcatcg ataccctcac atgcggttc gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgc tgccagggcc ctggcgcgcatg gcgtccgggt tctggaggac 480
ggcgtgaact atgcaacagg gaatctgccc gggtgtctct tctctatctt cctcttgggt 540
ttgctgtcct gcctgaccat cccagcgtcc gct 573
```

<210> 114

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK1

<400> 114

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggcgg tggtcagatc gttgggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggca gggcctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc atgggggtggg caggatggct cctgtcaccc 300
cgcggctctc ggctagttg gggccccaac gacccccggc gtaggtcgcg taatttgggt 360
aaggtcatcg ataccctcac atgcggttc gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgc tgccagggcc ctggcgcgcatg gcgtccgggt tctggaggac 480
ggcgtgaact acgcaacagg gaatttgccc gggtgtctct tctctatctt cctcttgggt 540
ctgttgtcct gtttgaccat cccagcttcc gcc 573
```



<210> 115  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: T10

<400> 115  
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60  
gacgtcaagt tcccgggcggt tgggtcagatc gttggtggag ttacctgtt gccgcgcagg 120  
ggccccaggt tgggtgtgct cgcgactagg aagacttccg agcggtcgca acctcgtgga 180  
aggcgacagc ctatccccaagg ggtcgcgcag cccgagggca gggcctgggc tcagcccggg 240  
tacccttggc ccctctatgg caatgagggc atgggggtggg caggatggct cctgtcacc 300  
cgtggctccc ggcctagttg gggccccaca gacccccggc gtaggtcgcg taatttgggt 360  
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420  
ggcgcccccc tagggggcgc tgccagggct ctggcacatg gtgtccgggt tctggaggac 480  
ggcgtgaact atgcaacagg gaatttgccc ggttgtctct tttctatctt cctcttgggt 540  
ctgctgtctt gtctgacctt cccagcttcc gct 573

<210> 116  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: SW2

<400> 116  
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60  
gacgtcaagt tcccgggcggt tggccagatc gttggtggag ttacctgtt gccgcgcagg 120  
ggcccccggt tgggtgtgct cgcgactagg aagacttccg agcggtcgca acctcgtgga 180  
aggcgacaac ctatccccaagg ggtcgcgcag cccgagggca gggcctgggc tcagcctggg 240  
tacccttggc ccctctatgg caatgagggc atgggatggg caggatggct cctgtcccc 300  
cgcggtcttc ggcctagttg gggccccact gacccccggc gtaggtcgcg taatttgggt 360  
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420  
ggcgcccccc tagggggcgc tgccagggcc ctggcgcatg gcgtccgggt cctggaggac 480  
ggcgtgaact atgcaacagg gaatttgccc ggttgtctct tttctatctt cctcttgggt 540  
ttgctgtcct gtctgacctt cccagcttcc gct 573

<210> 117  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: IND3

<400> 117

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccggggcg tggccagatc gttggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggta gggcctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc ttgggggtggg caggatggct cctgtcacc 300
cgcggttctc ggcctagttag gggccccaca gacccccggc gtaggtcgcg taatttgggt 360
aaagtcatcg ataccctcac atgcggtctc gccgacctca tggggtacat cccgctcgtc 420
ggcgcccccc tagggggcgc tgccagggcc ctggcgcgat gcgtccgggt cctggaggac 480
ggcgtgaact atgcaacagg gaacttgccc ggttgctctt tctctatctt ctttttagct 540
ttgctatcct gtttgaccat cccagcttcc gct 573
```

<210> 118

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: IND8

<400> 118

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tcccggggcg tggccagatc gttggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggta gggcctgggc tcagcccggg 240
cacccttggc ccctctatgg caatgagggc ttgggggtggg caggatggct cctgtcacc 300
cgcggtcttc ggcctagttag gggccccaca gacccccggc gtaggtcgcg taatttgggt 360
aaggatcatcg ataccctcac atgcggtctc gccgacctca tggggtacat cccgctcgtc 420
ggcgcccccc taggggggtgc tgccagggcc ctggcgcgat gcgtccgggt cctggaggac 480
ggcgtgaact atgcaacagg gaacttgccc ggttgctctt tctctatctt ctttttgggt 540
ttgctatcct gtttgaccgt cccagcttcc gct 573
```

<210> 119

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S9

<400> 119

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
```

```

gacgttaagt tccccgggcgg tggtcagatc gtcggtggag tttacctggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcaactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccca aa ggctcgccat cccgagggca gggcctgggc tcagcccggg 240
tacccttggc ccctctacgg caatgagggc ttgggtggg caggatggct cctgtcacc 300
cgtggctctc ggcctagttg gggccccaat gacccccggc gtaggtcgcg taatttgggt 360
aaggtcatcg ataccctcac atgcgggcttt gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgcg tgccagggct ctggcgcatg gcgtccgggt tctggaggac 480
ggcgtgaact atgcaacagg gaacctcccc ggttgctctt tctctatctt ccttctggct 540
ttgctgtcct gtttgaccat cccagcttcc gct 573

```

<210> 120

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK3

<400> 120

```

atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tccccgggcgg tggtcagatc gttggtggag tttacctggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgaccagg aagacttcag agcggtcgca acctcgtgga 180
aggcgacaac ctatcccca aa ggctcgccaa cccgagggca ggacctgggc tcagcccggg 240
tatecttggc ccctctatgg caacgagggc atgggtggg caggatggct cctgtcacc 300
cgcggctctc ggcctaattg gggccccacg gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg ataccctcac gtgcgggcttc gccgacctca tggggtacat cccgctcgtc 420
ggtgcccccc tagggggcggt tgccagagcc ttggcacatg gtgtccgggt tctggaggac 480
ggcgtgaact atgcaacagg gaatttacct ggttgctctt tctctatctt cctcttggct 540
ttgctgtcct gcttgaccac cccagcttcc gct 573

```

<210> 121

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK5

<400> 121

```

atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgtcaagt tccccgggcgg tggtcagatc gttggtggag tttacctggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgaccagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccca aa ggctcgccga cccgagggca ggacctgggc tcagcccggg 240
tatecttggc ccctctatgg caatgagggc atgggtggg caggatggct cctgtcacc 300
catggctctc ggcctagttg gggccccacg gacccccggc gtaggtcgcg taatttgggt 360
aaggtcatcg ataccctcac gtgcgggcttc gccgacctca tggggtacat cccgctcgtc 420

```

```

ggcgcccccc tagggggcgt tgccagagcc ctggcacacg gtgtccgggt tctggaggac 480
ggcgtgaact acgcaacagg gaatatcccc ggttgctctt tctctatctt ccttttggct 540
ttgctgtcct gtctgaccac cccagtttcc gct 573

```

<210> 122

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK4

<400> 122

```

atgagcacga atcctaaacc tcaaagaaag accaaacgta acaccaaccg ccgcccacag 60
gacgttaagt tcccgggcgg tggccagatc gtcgggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccaa ggctcgccaa cccgagggca ggacctgggc tcagcccggg 240
tacccttggc ccctctatgg caatgagggc atgggggtggg caggatggct cctgtcacc 300
cgcggtcttc ggcctagtgt gggccccacg gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420
ggcgccccct tagggggcgt tgccagagcc ctggcacatg gtgtccgggt tgtggaggac 480
ggcgtgaact atgcaacagg gaatttgcgc ggttgctctt tctctatctt cctcttggct 540
ctgctgtcct gtttgaccat cccagcttcc gct 573

```

<210> 123

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: P8

<400> 123

```

atgagcacga ctctaaacc tcaaagaaaa accaaacgta acaccagccg ccgcccacag 60
gacgttaagt tcccgggcgg tggtcagatc gttgggtggag ttacctgtt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcgatcgca acctcgtggc 180
aggcgacaac ctatcccaa ggctcgccgg cccgagggta gggcctgggc tcagcccggg 240
cacccttggc ccctctatgc caatgagggc ttgggggtggg cgggatggct cctgtcacc 300
cgcggtcttc ggcctagtgt gggccccacg gacccccggc gtaggtcgcg caatttgggt 360
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420
ggcgcccccc tagggggcgt tgccagggcc ctggcgcatg gcgtccgggt tgtggaggac 480
ggcgtgaact atgcaacagg gaattctgct ggttgctctt tctctatctt ccttttggct 540
ttgctgtctt gtctgaccat cccagcttcc gct 573

```

<210> 124

<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: T3

<400> 124

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccacag 60
gacgttaagt tcccgggcgg tggtcagatc gttgggtggag tttacctgtt gccgcgagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttccg agcggtcgca acctcgtgga 180
aggcgacaac ctatcccca ggctcgccgg cccgagggta gggcctgggc tcagcccggg 240
tacccttggc ccctctatgg cgacgagggc atgggggtggg caggatggct cctgtcacc 300
cgcggtccc ggcctaattg gggccccaca gacccccggc gtaggtcgcg taatctgggt 360
aaggtcatcg ataccctcac atgcggcttc gccgacctca tggggtacat tccgctcgtc 420
ggcgctccct tagggggcgt tgccagggcc ctggcgcatg gcgtccgggt tctggaggac 480
ggcgtgaatt acgcaacagg gaatttgcct ggttgctctt tctctatctt cctcttggct 540
ttgctgtcct gcttgacct cccagcttcc gct 573
```

<210> 125

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T4

<400> 125

```
atgagcacia atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg tcgcccacag 60
gacgttaagt tcccgggcgg cggccagatc gttggcggag tatacttgtt gccgcgagg 120
ggccccaggt tgggtgtgcg cgcgacaagg aagacttccg agcgatccca gccacgtggg 180
aggcgccagc ccatcccca agatcggcgc tccactggca agtcctgggg aaaaccagga 240
tatccctggc ccctgtatgg gaatgagggc ctcggctggg caggatggct cctgtcccc 300
cgaggttccc gtccctcctg gggccccaat gacccccggc ataggtcgcg caacgtgggt 360
aaggtcatcg ataccctaac gtgcagcctt gccgacctca tggggtacgt cccgctcgta 420
ggcgggcccg tgggtggcgt cgccagagct ctcgcgcgat gcgtgagagt cctggaggac 480
ggggttaatt atgcaacagg gaacttacct ggttgctcct tttctatctt cttgctggcc 540
ctactgtcct gcataccat tccagtctcc gct 573
```

<210> 126

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: US10

<400> 126

```
atgagcaciaa atcctaaacc tcaaagaaaa accaaaagaa acactaaccg tcgcccaciaa 60
gacgttaagt ttccgggagg cggccagatc gttggcggag tatacttggt gccgcgcagg 120
ggccccagggt tgggtgtgag cgcgacaagg aagacttcgg agcgggtcca gccacgtggg 180
aggcgccagc ccatcccaa agatcggcgc cccactggca agtcctgggg aaaaccagga 240
tacccttggc ccctatatgg gaatgaggga ctcggtggg caggatggct cctgtcccc 300
cgaggttccc gtccctcttg gggccccact gatccccggc ataggtcgcg caacgtgggt 360
aaggatcatg ataccctaac gtgagggttt gccgacctca tgggatacat ccccgctgtg 420
ggcgctccgc ttggtggcgt cgccagagct ctgcgcgatg gcgtgagggt cctggaggac 480
ggggtttaatt atgcaacagg gaacttaccg ggttgctcct tttctatctt cttgctggcc 540
ttactgtcct gcatcacat tccagtctct gct 573
```

<210> 127

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 127

```
atgagcaciaa atccaaaacc ccaaagaaaa accataagaa acaccaaccg tcgcccacag 60
gacgttaagt tcccgaggcg cggccagatc gttggcggag tatacttggt gccgcgcagg 120
ggccctagggt tgggtgtgag cagcacaagg aagacttcgg agcgggtcca gccacgtggg 180
aggcgccagc ccatcccaa agatcggcgc tccactggca agtcctgggg aaaaccagga 240
tacccttggc ctctatatgg gaatgaggga ctcggtggg cgggatggct cctgtcccc 300
cgaggttccc gtccctcttg gggccccagt gacccccggc ataggtcgcg caacgtgggt 360
aaggatcatg ataccctaac gtgagggttt gccgacctca tggggtacat ccccgctgta 420
ggcgccccgc ttggtggcgt tgccagagct ctgcgcacg gcgtgagagt cctggaggac 480
ggggtttaatt atgcaacagg gaacctacct ggttgctcct tttctatctt cttgctggcc 540
ctactgtcct gcatcacac tccggcctct gct 573
```

<210> 128

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T2

<400> 128

```
atgagcaciaa ttctaaacc tcaaagaaaa accaaaagaa acactaaccg tcgcccaciaa 60
gacgttaagt ttccgggagg cggccagatc gttggcggag tatacttggt gccgcgcagg 120
ggccccagggt tgggtgtgag cgcgacaagg aagacttcgg agcgggtcca gcctcgtgga 180
aggcgccagc ccatccctaa agatcggcgc tccactggca agtcctgggg aaaaccagga 240
```

```

tacccttggc ccctgtatgg gaatgagggg ctcggtctggg caggatggct cctgtcccc 300
cgaggttctc gtccctcttg gggccccaat gacccccggc ataggtcgcg caatgtgggt 360
aaagtcatcg ataccctaac gtgctggcttt gccgacctca tggggtacat cccgctcgta 420
ggcgccccgc ttggtggtgt cgccagagct cttgcgcatg gcgtgagagt cctggaggac 480
ggagtttaatt atgcaacagg taacttacct gggtgtctct tttctatctt cttgctagcc 540
ctgctgtcct gcatcactat tccggtttca gct 573

```

<210> 129

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: T8

<400> 129

```

atgagcacia atcctaaacc tcaaagaaaa accaaaagaa acacaaaccg ccgcccacag 60
gacgtcaagt tcccgggtgg cggccagatc gttggcggag tttacttgct gccgcgcagg 120
ggccctaggt tgggtgtgcg cgcgacaagg aagacttccg agcgatccca gccgcgtggg 180
agacgccagc ccatcccga agatcggcgc tccaccggca agtcctgggg aaaaccagga 240
tatacttggc ctctttacgg aaacgagggc tgcggttggg cagggttggt cctgtcccc 300
cgcggtgtct gtccacttg gggccccact gacccccggc atagatcacg taatttgggc 360
agagtcacgt ataccattac atgtggtttt gccgacctca tggggtacat cctgtcggt 420
ggcgccccgg tcggaggcgt cgccagagct ctggcacatg gtgttaggg cctggaagac 480
gggataaact atgcaacagg gaatttgcct gggtgtctct tttctatctt cttgcttgct 540
cttctgtcat gcttcacagt gccagtgctc gca 573

```

<210> 130

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: US1

<400> 130

```

atgagcacia atcctaaacc tcaaagaaaa accaaaagaa acacaaaccg ccgcccacag 60
gacgtcaagt tcccgggtgg cggtcagatc gttggcggag tttacttgct gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgacaagg aagacttccg agcgatccca gccgcgtggg 180
agacgccagc ccatcccga agatcggcgc tccaccggca agtcctgggg aaagccagga 240
tatacttggc ctctgtacgg aaacgagggc tgcggttggg cagggttggt cctgtcccc 300
cgcggtgtct gtccacttg gggccccact gacccccggc acagatcacg taacttgggc 360
aaggtcatcg ataccattac gtgtggtttt gccgacctca tggggtacat cctgtcggt 420
ggcgccccgg tcggaggcgt cgccagagct ctggcacacg gtgttaggg cctggaagac 480
gggataaatt acgcaacagg gaattctgct gggtgtctct tttctatctt cttacttgct 540
cttctgtcgt gcgccacggt gccggtgtct gca 573

```

<210> 131  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: DK11

<400> 131  
atgagcacaa atcctaaacc tcaaagaaaa accaaaagaa atacaaaccg ccgcccacag 60  
gacgttaagt tcccgggtgg cggccagatc gttggcggag tttacttgct gccgcgcagg 120  
ggccccaggt tgggtgtgcg cagcacaagg aagacttccg agcgatcca gccgcgtggg 180  
agacgccagc ccatcccgaa agatcggcgc tccaccggca agccctgggg aaagccagga 240  
tataccttggc ccctgtatgg aaacgagggc tgcggctggg caggttggct cctgtcccc 300  
cgcggtctc atcctaattg gggccccact gacccccggc ataaatcacg caatttgggt 360  
aaagtcatcg acaccattac gtgtggtttt gccgacctca tggggtacat ccctgtcgtc 420  
ggcgccccgg tcggaggcgt cgccagagct ctggcacacg gtgttagagt cctggaagac 480  
gggataaatt acgcaacagg gaatctgcct ggttgctctt tttctatctt cttacttgct 540  
cttctgtcat gctgcacagt gccagtgtct gcg 573

<210> 132  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SW3

<400> 132  
atgagcacaa atcctaaacc tcaaagaaaa accaaaagaa atacaaaccg ccgcccacag 60  
gacgttaagt tcccgggtgg cggccagatc gttggcggag tttacttgct gccgcgcagg 120  
ggccccaggt tgggtgtgcg cgcgacaagg aagacttccg agcgatcca gccgcgtggg 180  
agacgccagc ccatcccgaa agatcggcgc tccaccggca agtcctgggg aaagccagga 240  
tataccttggc ccctgtatgg aaacgagggc tgcggctggg caggttggct cctgtcccc 300  
cgcggtctc atcctaattg gggccccact gacccccggc atagatcacg caatttgggc 360  
aaagtcatcg acaccattac gtgtggtttt gccgacctca tggggtacat ccctgtcgtt 420  
ggcgccccgg tcggaggcgt cgccagagct ctggcacacg gtgttagagt cctggaagac 480  
gggataaatt acgcaacagg gaatctgcct ggttgctctt tttctatctt cttacttgct 540  
cttctgtcgt gcttcacagt gccagtgtct gcg 573

<210> 133  
<211> 573  
<212> DNA  
<213> Homo sapiens



<220>

<223> Individual Isolate: DK8

<400> 133

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atgagcacia atcctaaacc tcaaagaaaa accaaaagaa acacaaaccg ccgcccacag 60
gacgttaagt tcccgggtgg cggccagatc gttggcggag ttacttgct gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgacaagg aagtcttccg agcgatccca gccgcgtggg 180
aggcgccagc ccatcccgaa agatcggcgc tccaccggca agtcctgggg aaaaccggga 240
tattcttggc ccctgtatgg aaacgagggc tgcggctggg cagggtggct cctgtcccc 300
cgcggtctc gtctacttg gggccccact gacccccggc atagatcacg caatttgggc 360
aaagtcatcg acaccattac gtgtggtttt gccgacctca tggggtacat ccctgtcgtt 420
ggcgccccgg ttggaggcgt cgccagagct ctggcacacg gtgttagggg cctggaagac 480
gggataaatt acgcaacagg gaatttgctt ggttgctctt tttctatctt cttgcttgct 540
cttctgtcgt gctgcacagt gccagtgtct gcg 573
```

<210> 134

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S83

<400> 134

```
atgagcacia atcctaaacc tcaaagaaaa accaaaagaa acactaaccg ccgcccacag 60
gacgtcaagt tcccggggcg tggccagatc gttggcggag tatacttgct gccgcgcagg 120
ggccccagat tgggtgtgcg cgcgacgagg aaaacttccg aacgggtcca gccacgtggg 180
aggcgccagc ccatccctaa agatcggcgc accactggca agtcctgggg aaggccagga 240
tacccttggc ccctgtatgg gaatgagggc ctcggtggg cagggtggct cctgtcccc 300
cgcggttctc gcccttcag gggccccacc gacccccggc ataaatcgcg caacttgggt 360
aaggatcatg ataccctaac gtgcgggtttt gccgacctca tggggtacat acccgctcgtt 420
ggcgctcccg ttggcggcgt tgccagagcc ctgcgccatg ggggtgagggt tctggaggac 480
gggataaatt atgcaacggg gaatttgccc ggttgctctt tctctatctt tctcttggcc 540
ctcttgctt gcattctctg gccagtttcc gcc 573
```

<210> 135

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 135

```
atgagcacac ttctaaacc tcaaagaaaa accaaaagaa acaccatccg tcgcccacag 60
```

```

gacgttaagt tccccgggtgg cggacagatc gttggtggag tatacgtggt gccgcgcagg 120
ggcccacgat tgggtgtgcg cgcgacgcgt aaaacttctg aacggtcgca gcctcgcgga 180
cgacgacagc ctatcccca ggcgcgtcgg agcgaaggcc ggtcctgggc tcagcccggg 240
tacccttggc ccctctatgg taacgagggc tgcgggtggg caggatggct cctgtcccca 300
cgcggtccc gtccatcttg gggcccaaac gacccccggc gacgggtccc caatttgggt 360
aaagtcatcg atacccttac gtgcggtatc gccgacctca tggggtacat cccgctcgtc 420
ggcgctccc taggaggcgt cgcaagagcc ctgcgcgatg gcgtgagggc ccttgaagac 480
gggataaatt tcgcaacagg gaacttgccc ggttgctcct tttctatctt ctttcttgc 540
ctgttctctt gcttaattca tccagcagct agt 573

```

<210> 136

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S52

<400> 136

```

atgagcacac ttcctaaacc tcaaagaaaa accaaaagaa acaccatccg tcgcccacag 60
gacgttaagt tccccgggtgg cggacagatc gttggtggag tatacgtggt gccgcgcagg 120
ggcccacgat tgggtgtgcg cgcgacgcgt aaaacttctg aacggtcaca gcctcgcgga 180
cgacgacagc ctatcccca ggcgcgtcgg agcgaaggcc ggtcctgggc tcagcccggg 240
tacccttggc ccctctatgg taatgagggc tgcgggtggg cagggtggct cctgtcccca 300
cgcggtccc gtccatcttg gggcccaaac gacccccggc ggaggtccc caatttgggt 360
aaagtcatcg atacccttac gtgcggtatc gccgacctca tggggtacat cccgctcgtc 420
ggcgctccc taggaggcgt cgcaagagcc ctgcgcgatg gcgtgagggc ccttgaagac 480
gggataaatt ttgcaacagg gaacttgccc ggttgctcct tttctatctt ctttcttgc 540
ctgttctcct gcttagttca tcctgcagct agt 573

```

<210> 137

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: S2

<400> 137

```

atgagcacac ttcctaaacc tcaaagaaaa accaaaagaa acaccatccg tcgcccacag 60
gacatcaagt tccccgggtgg cggacagatc gttggtggag tatacgtggt gccgcgcagg 120
ggcccacgat tgggtgtgcg cgcgacgcgt aaaacttctg aacggtcaca gcctcgcgga 180
cggcgacagc ctatcccca ggcgcgtcgg agcgaaggcc gatcctgggc tcagcccggg 240
tacccttggc ccctctatgg taacgagggc tgcgggtggg cagggtggct cctgtcccca 300
cgcggtccc gtccatcttg gggcccaaac gacccccggc ggaggtccc caatttgggt 360
aaagtcatcg atacccttac gtgcggtctc gccgacctca tggggtacat cccgctcgtc 420

```

```

ggcgctcccg taggaggcgt cgcaagagcc ctcgcgcatg gcgtgagggc ccttgaagac 480
gggataaatt ttgcaacagg gaacttgccc gggtgctctt tttctatctt ccttcttgcc 540
ctgttctctt gcttaattca tccagcagct agt 573

```

```

<210> 138
<211> 573
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> Individual Isolate: DK12

```

```

<400> 138
atgagcacac ttcctaaacc tcaaagaaaa accaaaagaa acaccatccg tcgcccacag 60
gacgtcaagt tcccgggtgg cggacagatc gttgggtggag tatacgtgtt gccgcgcagg 120
ggcccacgat tgggtgtgcg cgcgacgcgt aaaacttctg aacggtcaca gcctcgcgga 180
cggcgacagc ctatcccaa ggcgcgctcg agcgaaggcc ggtcctgggc tcagcctggg 240
tacccttggc ccctctatgg taacgagggc tgcgggtggg caggggtggct cctgtcccca 300
cgcggtctcc gtccatcttg gggcccaaac gacccccggc ggaggtcccg caatttgggt 360
aaggtcatcg ataccctcac gtgcggattc gccgacctca tggggtacat cccgctcgtc 420
ggcgctcctg tagggggcgt cgcaagagcc ctcgcgcatg gcgtgagggc ccttgaagac 480
gggataaatt tcgcaacagg gaacttgccc gggtgctcct tttctatctt ccttcttgct 540
ctgttctctt gcctaattca tccagcagct agt 573

```

```

<210> 139
<211> 573
<212> DNA
<213> Homo sapiens

```

```

<220>
<223> Individual Isolate: Z4

```

```

<400> 139
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgccccatg 60
gacgtaaagt tcccgggtgg tggccagatc gttggcgagg tttacttggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactcga aagacttcgg agcggtcgca acctcgtggc 180
aggcgtcaac ctatcccaa ggcgcgccag ccagagggca gatcctgggc gcagcccggg 240
tacccttggc ccctctatgg caatgagggc tgcgggtggg caggggtggct cctgtctcct 300
cgcggtcttc ggccatcttg gggcccaaact gatccccggc ggagatcgcg caatctgggt 360
aaggtcatcg ataccctgac gtgcggcttc gccgacctca tgggatacat cccgatcgtg 420
ggcgcccccg tggggggcgt cgccagggct ctggcgcatg gcgtcagggc tgtggaggac 480
gggattaact atgcaacagg gaatcttccc gggtgctcct tctctatctt ccttttggca 540
cttctttcgt gcctcactgt tccagcgtcg gct 573

```

```

<210> 140

```

<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: Z8

<400> 140

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgccctatg 60
gatgtaaaaat tcccaggcgg cggccagatc gttggcggag tttacttggt gccgcgcagg 120
ggccccagggt tgggtgtgcg cgcgactcgg aagacttcgg agcggtcgca acctcgtggc 180
aggcgtcagc ctatcccca a ggcacgtcgg tccgagggta ggtcctgggc tcagccccggg 240
taccatggc ctctttacgg taatgaaggc tgtgggtggg cagggtggct cctgtcccc 300
cgcggtctc gaccgtcttg gggcccaa at gatccccggc ggaggtcgcg caatttgggt 360
aaggatcatg ataccctcac gtgcggcttc gccgacctca tgggatacat cccgctcgtg 420
ggcgccccag taggaggcgt cgccagagcc ctggcgcatg gcgtcagggc tgtggaggac 480
gggatcaact atgcaacagg gaaccttcct ggttgctctt tctctatctt cctcttgga 540
cttctctcgt gcctaaccgt cccagcgtct gct 573
```

<210> 141  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: Z1

<400> 141

```
atgagcacia atcctaaacc tcaaagaaaa accaaacgta acaccaaccg tcgccccatg 60
gatgtgaaat tcccgggcgg cggccagatc gttggcggag tttacttgct gccgcgcagg 120
ggcccccggt tgggtgtgcg cgcagctcgg aagacttcgg agcggtcaca acctcgtggc 180
aggcgtcagc ctatcccca a ggcgcgccgg tccgagggca ggtcctgggc tcagccccggg 240
tacccttggc ccctttacgg caatgagggc tgtgggtggg cagggtggct cctgtcccc 300
cgcggttcca ggccgtcttg gggcccaa at gatccccggc gtaggtcccg taatctgggt 360
aaagtcacg ataccctgac gtgtggcttc gccgacctca tgggatacat tccgctcgta 420
ggcgccccctg tgggtggcgt cgccagggcc ctggcgcatg gcgtcagggc cgtggaggac 480
ggaattaact acgcaacagg gaaccttcct ggttgctctt tctctatctt tcttcttgca 540
cttctctcgt gcctgacaac accagcatct gcc 573
```

<210> 142  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: Z5

<400> 142

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgccccatg 60
gatgtaaaat tcccgggtgg tggtcagatc gttggcggag tttacttggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactcgg aagacttcgg agcggtcgca acctcgcggc 180
aggcgtcagc ctatccccc a ggcacgtcgg tccgagggca ggtcctgggc tcagcccggg 240
tacccttggc ctctttatgg caatgagggc tgtgggtggg cagggtggct cctgtcccc 300
cgcggatctc ggccatcttg gggccaaaat gatccccggc gtaggtcccg caatctgggt 360
aaggatcatg ataccctgac gtgtggcttc gccgacctca tgggatacat tccgctcgtc 420
ggcgccccag taggtggcgt cgccagggcc ttggcgcagtg gcgtcagggc cctggaggac 480
ggaatcaact atgcaacagg gaatcttcc tgggtgctcct tttctatctt cctacttgca 540
cttttctcgt gcttgacaac accggcatcc gct 573
```

<210> 143

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: Z6

<400> 143

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgccccatg 60
gacgttaagt tcccgggtgg tggccagatc gttggcggag tttacttggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactagg aagacttcgg agcggtcgca acctcgtggg 180
agacgccagc ctatcccca a ggcacgtcga tctgagggaa ggtcctgggc tcagcccggg 240
tatccatggc ctctttacgg taatgagggt tgcgggtggg cgggatggct cctgtcaccc 300
cgtggctctc gaccgtcttg gggtcctaat gatccccggc gaagggtccc caacttgggt 360
aaggatcatg atactctaac ttgcgggttc gccgatctca tgggatacat cccgctcgtc 420
ggcgcccccg tgggcggcgt cgccagggcc ctggcacatg gtgttagggc tgtggaggac 480
gggatcaatt atgcaacagg gaatcttccc ggttgctcct tctctatctt cctcttgcca 540
cttctttcgt gcctaactgt tcccacctcg gcc 573
```

<210> 144

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: Z7

<400> 144

```
atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgccccatg 60
gacgttaagt tcccggggcg tggccagatc gttggcggag tttacttggt gccgcgcagg 120
ggccccagat tgggtgtgcg cacaactagg aagacttcgg agcggtcgca acctcgtggg 180
agacgtcagc ctatcccca a ggcacgtcga tctgagggaa ggtcctgggc tcaaccggg 240
```

```

taccatggc ctctttacgg taacgagggg tgcggggtggg caggatggct cttgtcaccc 300
cgtggctctc gaccgtcttg gggcccaaagt gatccccggc gaagggtccc caacttgggt 360
aagggtcatcg ataccctaac ctgcggtctt gccgacctca tgggatacat cccgctcgta 420
ggcgcccccg tgggcggcgt cgccagggcc ctgagcgatg gcgttagggc tctggaggac 480
gggattaatt atgcaacagg gaaccttccc gggtgctctt tttctatctt cctcttggca 540
cttctttcgt gcctgactgt tcccgcctcg gcc

```

<210> 145

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: DK13

<400> 145

```

atgagcacga atcctaaacc tcaaagaaaa accaaacgta acaccaaccg ccgcccgaatg 60
gacgttaagt tcccgggtgg cgccagatc gttggcgagg ttacttggt gccgcgcagg 120
ggccctagat tgggtgtgcg cgcgactagg aagacttcgg agcggtcgca acctcgtggg 180
aggcgccagc ctatcccaa ggcgcgccaa ctcgagggtg ggtcctgggc tcagcctggg 240
tatecttggc ccctttacgg caatgagggc tgcggggtggg cgggatggct cctgtcaccc 300
cgtggctctc ggccgtcttg gggcccgaat gatccccggc ggaggtccc caacttgggt 360
aagggtcatcg ataccctaac ttgcggtctt gccgacctca tgggatacat cccggtcgta 420
ggcgcccccg tgggtggcgt cgccagagcc ctggcgcatg gcgtcaggct tctggaggac 480
gggggtcaatt atgcaacagg gaatcttccc gggtgctctt tctctatctt cctcttggca 540
ctgctctcgt gcctgactgt tcccgtctcg gcc

```

<210> 146

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA4

<400> 146

```

atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60
gacgttaagt tcccgggagg tggtcagatc gttgggtggg tctacttggt gccgcgcagg 120
ggccctaggt tgggtgtgcg cgcgactcgg aagacttcag aacggtcgca acccgtggg 180
cgcgccagc ctattcccaa ggcgcgccaa cccacgggcc ggtcctgggg tcaaccggg 240
tacccttggc ccctttacgc caatgagggc ctcggggtggg cagggtgggt gctctcccc 300
cgaggctctc ggccctaatt gggcccgaat gacccccggc gaaagtcgcg caatttgggt 360
aagggtcatcg ataccctaac gtgcggtctt gccgacctca tggggtacat cccgctcgta 420
ggcgcccccg ttggggggtg cgcaagggcc cttgcacatg gtgtgagggt tcttgaggac 480
gggggtaaact atgcaacggg gaatttgccc gggtgctctt tctctatctt tatccttgca 540
cttctctcgt gcctgacctt cccggcctct gca

```

<210> 147  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA5

<400> 147  
atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60  
gacgtcaagt tcccgggcgg tggtcagatc gttgggtggag ttacttggt gccgcgcagg 120  
ggccctagat tgggtgtgcg cgcgactcgg aagacttcag aacggtcgca acccctggg 180  
cggcgccagc ctattcccaa ggcgcgccaa cccacgggcc ggtcctgggg tcaaccggg 240  
tacccttggc ccctttacgc caatgagggc ctcggggtggg caggggtggtt gctctcccc 300  
cgaggctctc ggcctaattg gggccccaat gacccccggc gaaaatcgcg caatttgggt 360  
aaggtcatcg ataccctaac gtgcggattc gccgacctca tggggtacat cccgctcgta 420  
ggcgcccccg ttgggggcgt cgcaagggcc ctgcacatg gtgtgagggt tcttgaggac 480  
ggggtaaact atgcaacagg gaatttggcc ggttgcctct tctctatctt tacccttgca 540  
cttctctcgt gcttgaccgt cccagcctct gca 573

<210> 148  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>  
<223> Individual Isolate: SA7

<400> 148  
atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60  
gacgtcaagt tcccgggcgg tggtcagatc gttgggtggag ttacttggt gccgcgcagg 120  
ggccctaggt tgggtgtgcg cgcgactcgg aagacttcag aacggtcgca acccctggg 180  
cggcgccagc ctattcccaa ggcgcgccaa cccacgggcc ggtcctgggg tcaaccggg 240  
tacccttggc ccctttacgc caatgagggc ctcggggtggg caggggtggtt gctctcccc 300  
cgaggctctc ggcctaattg gggccccaat gacccccggc gaaagtcgcg caatttgggt 360  
aaggtcatcg acaccctaac atgcggattc gccgacctca tggggtacat cccgctcgta 420  
ggcgcccccg ttgggggcgt cgcaagggct ctgcacacg gtgtgagggt tcttgaggac 480  
ggggtaaatt acgcaacagg gaatctggcc ggttgcctct tctctatctt tacccttgca 540  
cttctctcgt gcttgaccgt cccagcctcc gca 573

<210> 149  
<211> 573  
<212> DNA  
<213> Homo sapiens

<220>

<223> Individual Isolate: SA1

<400> 149

```
atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaacct ccgcccacag 60
gacgtcaagt tcccgggcgg tggtcagatc gttggtggag ttacttggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactcgg aagacttcgg aacggtcgca acccgtggg 180
cggcgccagc ctattcccaa ggcgcgccaa cccacgggcc ggtcctgggg tcaaccggg 240
tacccttggc ccctttacgc caatgagggc ctcgggtggg cagggtggtt gctctcccc 300
cgaggctctc ggctaattg gggccccaat gaccccggc ggaagtcgcg caatttgggt 360
aaggtcatcg ataccctaac gtgcggattc gccgacctca tggggtacat cccgctcgta 420
ggcgcccccg ttggggggcg cgcaagggct ctcgcacacg gtgtgagggt tcttgaggac 480
ggggtaaact acgcaacagg gaatttgccc ggttgctctt tctctatctt tatccttgca 540
cttctttcct gtctgatcat cccggcctct gca 573
```

<210> 150

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA3

<400> 150

```
atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggcgg tggtcagatc gttggtggag ttacttggt gccgcgcagg 120
ggccccaggt tgggtgtgcg cgcgactcgg aagacttcag aacggtcgca acccgtgga 180
cggcgccagc ctattcccaa ggctcgccag cccacgggcc ggtcctgggg tcaaccggg 240
tacccttggc ccctttacgc caatgagggc ctcgagtggg cagggtggtt gctctcccc 300
cgaggctctc ggctaagt gggccccaac gaccccggc ggaaatcgcg caatttgggt 360
aaggtcatcg ataccctaac gtgcggattc gccgatctca tggggtacat cccgctcgta 420
ggcgcccccg ttggggggcg cgcaagggct ctcgcacatg gtgtgagggt tcttgaggac 480
ggggtaaact acgcaacagg gaatttacct ggttgctctt tctctatctt tatccttgca 540
cttctttcat gcctgaccgt cccggcctct gca 573
```

<210> 151

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA13

<400> 151

```
atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60
```



```

gacgtcaagt tcccgggcggt tggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctaggt tgggtgtgcg cgcaactcgg aagacttcag aacggtcgca acccctgga 180
cggcgctcagc ctatcccaa ggcgcgccag cccacgggcc ggtcctggg tcaaccggg 240
tacccttggt ccctttatgc caatgagggc ctcggtggg cagggtggt gctctcccc 300
cgaggctctc ggctaattg gggcccaat gaccccgcc ggaaatcgc caacttgggt 360
aaggtcatcg ataccctgac gtgcggttc gccgacctca tggggtacat cccgctcgta 420
ggcgccccg ttggggggt cgcaagggt ctgcacacg gtgtgaggt ccttgaggac 480
ggggtaaact atgcaacagg gaatttacc ggttgctctt tctctatctt tatccttgca 540
cttctttcat gcctgactgt cccgacctct gcc 573

```

<210> 152

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA6

<400> 152

```

atgagcacga atcctaaacc tcaaagaaaa acccaaagaa acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggcggt tggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctcgta tgggtgtgcg cgcgactcgg aagacttcgg aacggtcgca acccctgga 180
cggcgctcagc ctattcccaa ggcgcgccaa tccgcggtc ggtcctggg tcaaccggg 240
tacccttggt ccctttacgc caatgagggc ctcggtggg cagggtggt gctctcccc 300
cgaggctctc ggctaattg gggcccaat gaccccgcc gaaaatcgc caatttgggt 360
aaggtcatcg ataccctaac gtgcggttc gccgacctca tggggtacat cccgctcgta 420
ggcgccccg ttggggggt cgcaagggt ctgcacacg gtgtgaggt tcttgaggac 480
ggggtaaact atgcaacagg gaatttgccc ggttgctctt tctctatctt tgccttgca 540
cttctctcgt gcctaaccgt ccctgcctct gca 573

```

<210> 153

<211> 573

<212> DNA

<213> Homo sapiens

<220>

<223> Individual Isolate: SA11

<400> 153

```

atgagcacga atcctaaacc tcaaagaaaa accaaaagaa acaccaaccg ccgcccacag 60
gacgtcaagt tcccgggcggt tggtcagatc gttggtggag tttacttggt gccgcgcagg 120
ggccctaggt tgggtgtgcg cgcgactcgg aagacttcag aacggtcgca acccctggg 180
cggcgctcagc ctattcccaa ggcgcgccaa cccacgggcc ggtcctggg tcaaccggg 240
tacccttggt ccttttacgc caatgagggc ctcggtggg cagggtggt gctctcccc 300
cgaggctctc ggctaactg gggcccaat gaccccgcc gaagatcgc caatttgggc 360
aaggtcatcg ataccctaac gtgcggttc gccgacctca tggggtacat cccgctcgta 420

```

ggcgccccg ttgggggcgt cgcaagggcc ctgcacacg gtgtgagagc tcttgaggac 480  
 ggggtaaatt atgcaacagg gaatcttccc ggttgctctt tctccatctt tatccttgca 540  
 cttctctcgt gcttgaccgt cccggccact gca 573

<210> 154  
 <211> 573  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: HK2

<400> 154  
 atgagcacac ttccaaaacc ccaaagaaaa accaaaagaa acaccaaccg tcgcccacg 60  
 gacgtcaagt tcccgggtgg cggtcagatc gttggcggag ttacttggt gccgcgcagg 120  
 ggcccccggt tgggtgtgcg cgcgacgaga aagacttccg agcgatccca gccagaggc 180  
 aggcgccaac ctatacaaaa ggcgcgccag cccagggca ggcactgggc tcagcccga 240  
 tacccttggc ctctttatgg aaacgagggc tgtgggtggg caggttggct cctgtcccc 300  
 cgcggtccc ggccacattg gggccccaat gacccccggc gtcgatccc gaatttgggt 360  
 aaggtcatcg ataccctaac gtgtgggttc gccgatctca tggggtacat tccgctcgtg 420  
 ggcgcgcctt tgggcggcgt cgcggtgcg ctgcacatg gcgtgagggc aatcgaggac 480  
 gggatcaatt atgcaacagg gaatctcccc ggttgctctt tctctatctt ccttttggca 540  
 ctactctcgt gcctcacaac gccagcttcg gct 573

<210> 155  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: DK7

<400> 155  
 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
 1 5 10 15  
 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
 20 25 30  
 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
 35 40 45  
 Pro Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
 50 55 60  
 Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly

65		70		75		80									
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Thr	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Leu
	130					135					140				
Gly	Gly	Ala	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155				160	
Gly	Val	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Ala	Ser	Ala	
			180					185					190		
<210> 156															
<211> 191															
<212> PRT															
<213> Homo sapiens															
<220>															
<223> Individual Isolate: US11															
<400> 156															
Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Gln	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	Arg	Pro	Glu	Gly	Arg	Thr	Trp	Ala	Gln	Pro	Gly
65					70					75				80	

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 157

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S14

<400> 157

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 158

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW1

<400> 158

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro

100	105	110
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys		
115	120	125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu		
130	135	140
Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp		
145	150	155
Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile		
165	170	175
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala		
180	185	190

<210> 159  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S18

<400> 159
Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60
Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly
65 70 75 80
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95
Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 160

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DR4

<400> 160

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
 180 185 190

<210> 161

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA10

<400> 161

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
 50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
 100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu



130	135	140
Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp		
145	150	155 160
Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Pro Phe Ser Ile		
	165	170 175
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala		
	180	185 190

<210> 162  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S45

<400> 162

Met Ser Thr Asn Pro Lys Pro Gln Arg Ala Thr Lys Arg Asn Thr Asn
1 5 10 15
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
35 40 45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60
Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly
65 70 75 80
His Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp
85 90 95
Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
100 105 110
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
115 120 125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
 180 185 190

<210> 163

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: D1

<400> 163

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
 50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
 100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
 130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
 145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 164

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US6

<400> 164

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile



Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 166

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK1

<400> 166

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 167  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: T10

<400> 167

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Gln	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	Gln	Pro	Glu	Gly	Arg	Ala	Trp	Ala	Gln	Pro	Gly
65					70					75				80	
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Met	Gly	Trp	Ala	Gly	Trp
			85					90					95		
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Thr	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120				125				
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Leu
	130					135					140				
Gly	Gly	Ala	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155				160	
Gly	Val	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
			165					170					175		
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Ile	Pro	Ala	Ser	Ala	
			180					185					190		

<220>  
<223> Individual Isolate: SW2

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp

85 90 95

Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Thr	Asp	Pro
			100					105					110		

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

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<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: IND3

<400> 169

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 170

<211> 191

<212> PRT

<213> Homo sapiens



<220>

<223> Individual Isolate: IND8

<400> 170

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

His Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 171

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S9

<400> 171

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Gln	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	His	Pro	Glu	Gly	Arg	Ala	Trp	Ala	Gln	Pro	Gly
65					70					75				80	
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Leu	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Leu
	130					135					140				
Gly	Gly	Ala	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155				160	
Gly	Val	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165				170						175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Ile	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 172

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK3

<400> 172

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Ala Ser Ala  
180 185 190

<210> 173

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK5

<400> 173

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn

1	5	10	15
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly			
20	25	30	
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala			
35	40	45	
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro			
50	55	60	
Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly			
65	70	75	80
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp			
85	90	95	
Leu Leu Ser Pro His Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro			
100	105	110	
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys			
115	120	125	
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu			
130	135	140	
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp			
145	150	155	160
Gly Val Asn Tyr Ala Thr Gly Asn Ile Pro Gly Cys Ser Phe Ser Ile			
165	170	175	
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Val Ser Ala			
180	185	190	

<210> 174

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK4

<400> 174

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Met Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Val Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 175

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: P8

<400> 175

Met Ser Thr Thr Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ser  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly  
65 70 75 80

His Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Val Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala  
180 185 190

<210> 176

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T3

<400> 176

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala

35	40	45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro		
50	55	60
Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln Pro Gly		
65	70	75
Tyr Pro Trp Pro Leu Tyr Gly Asp Glu Gly Met Gly Trp Ala Gly Trp		
	85	90
Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Thr Asp Pro		
	100	105
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys		
	115	120
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu		
	130	135
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp		
	145	150
Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile		
	165	170
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Ile Pro Ala Ser Ala		
	180	185

<210> 177

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T4

<400> 177

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn		
1	5	10
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly		
	20	30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala		
	35	45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Ser Leu Ala Asp Leu Met Gly Tyr Val Pro Val Val Gly Gly Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala  
180 185 190

<210> 178

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US10

<400> 178

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60



Ile Pro Lys Asp Arg Arg Pro Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala  
180 185 190

<210> 179

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T9

<400> 179

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Ile Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Thr  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly

65		70		75		80									
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Leu	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Ser	Asp	Pro
			100					105					110		
Arg	His	Arg	Ser	Arg	Asn	Val	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
		115					120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Val	Val	Gly	Ala	Pro	Leu
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155					160
Gly	Val	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Ile	Thr	Thr	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 180

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T2

<400> 180

Met	Ser	Thr	Ile	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Gln	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Asp	Arg	Arg	Ser	Thr	Gly	Lys	Ser	Trp	Gly	Lys	Pro	Gly
65					70					75				80	

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Ile Pro Val Ser Ala  
180 185 190

<210> 181

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: T8

<400> 181

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Leu Gly Arg Val Ile Asp Thr Ile Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Phe Thr Val Pro Val Ser Ala  
180 185 190

<210> 182

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: US1

<400> 182

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro

100	105	110
Arg His Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys		
115	120	125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val		
130	135	140
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp		
145	150	155
Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile		
165	170	175
Phe Leu Leu Ala Leu Leu Ser Cys Ala Thr Val Pro Val Ser Ala		
180	185	190

<210> 183  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: DK11

<400> 183

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
20 25 30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Thr
35 40 45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
50 55 60
Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Pro Trp Gly Lys Pro Gly
65 70 75 80
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
85 90 95
Leu Leu Ser Pro Arg Gly Ser His Pro Asn Trp Gly Pro Thr Asp Pro
100 105 110

Arg His Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Cys Thr Val Pro Val Ser Ala  
180 185 190

<210> 184

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SW3

<400> 184

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser His Pro Asn Trp Gly Pro Thr Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val  
 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Phe Thr Val Pro Val Ser Ala  
 180 185 190

<210> 185

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK8

<400> 185

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
 35 40 45

Thr Arg Lys Ser Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
 50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Thr Trp Gly Pro Thr Asp Pro  
 100 105 110

Arg His Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Ile Thr Cys  
 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val

130	135	140	
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp			
145	150	155	160
Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile			
	165	170	175
Phe Leu Leu Ala Leu Leu Ser Cys Cys Thr Val Pro Val Ser Ala			
	180	185	190

<210> 186  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: S83

<400> 186

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn			
1	5	10	15
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly			
	20	25	30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala			
	35	40	45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro			
	50	55	60
Ile Pro Lys Asp Arg Arg Thr Thr Gly Lys Ser Trp Gly Arg Pro Gly			
	65	70	75
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp			
	85	90	95
Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro			
	100	105	110
Arg His Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys			
	115	120	125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val			
	130	135	140



Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
 145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
 165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Ser Val Pro Val Ser Ala  
 180 185 190

<210> 187

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK10

<400> 187

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile  
 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
 20 25 30

Gly Val Tyr Val Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
 35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
 50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly  
 65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
 85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
 100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
 115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val  
 130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
 145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser  
180 185 190

<210> 188

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: S52

<400> 188

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Val Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile



Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser  
180 185 190

<210> 190

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK12

<400> 190

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Val Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
145 150 155 160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Ile His Pro Ala Ala Ser  
180 185 190

<210> 191  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: Z4

<400> 191

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	Gln	Pro	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75				80	
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85				90						95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115					120				125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Ile	Val	Gly	Ala	Pro	Val
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Ala	Val	Glu	Asp
145					150					155				160	
Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165				170						175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 192  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: Z8

<400> 192

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		

Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
	35						40					45			

Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				

Ile	Pro	Lys	Ala	Arg	Arg	Ser	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75				80	

Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
			85						90					95	

Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		

Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			

Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Val
	130					135					140				

Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Ala	Val	Glu	Asp
145					150					155				160	

Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165				170						175	

Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 193  
 <211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z1

<400> 193

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		

Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
	35						40					45			

Ala	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				

Ile	Pro	Lys	Ala	Arg	Arg	Ser	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75				80	

Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	

Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		

Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			

Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Val
	130					135					140				

Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Ala	Val	Glu	Asp
145					150					155				160	

Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	

Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Thr	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 194

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z5

<400> 194

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		

Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
	35						40					45			

Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				

Ile	Pro	Gln	Ala	Arg	Arg	Ser	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75				80	

Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	

Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Gln	Asn	Asp	Pro
			100					105					110		

Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			

Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Val
	130					135					140				

Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Ala	Leu	Glu	Asp
145					150					155				160	

Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	

Phe	Leu	Leu	Ala	Leu	Phe	Ser	Cys	Leu	Thr	Thr	Pro	Ala	Ser	Ala	
			180					185					190		

<210> 195

<211> 191

<212> PRT

<213> Homo sapiens

<220>



<223> Individual Isolate: Z6

<400> 195

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	Arg	Ser	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75				80	
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Ala	Pro	Val
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Ala	Val	Glu	Asp
145					150					155				160	
Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165				170						175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Thr	Ser	Ala	
			180					185					190		

<210> 196

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: Z7

<400> 196

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Thr  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
145 150 155 160

Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 197

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: DK13

<400> 197

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn

1	5	10	15
Arg Arg Pro Met Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly			
20	25	30	
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala			
35	40	45	
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro			
50	55	60	
Ile Pro Lys Ala Arg Gln Leu Glu Gly Arg Ser Trp Ala Gln Pro Gly			
65	70	75	80
Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp			
85	90	95	
Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro			
100	105	110	
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys			
115	120	125	
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Val			
130	135	140	
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Leu Leu Glu Asp			
145	150	155	160
Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile			
165	170	175	
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala			
180	185	190	

<210> 198

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA4

<400> 198

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 199

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA5

<400> 199

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 200

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA7

<400> 200

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala

35	40	45
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro		
50	55	60
Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly		
65	70	75 80
Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp		
	85 90	95
Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro		
	100 105	110
Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys		
	115 120	125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val		
	130 135	140
Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp		
	145 150	155 160
Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile		
	165 170	175
Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala		
	180 185	190

<210> 201

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA1

<400> 201

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn		
1	5	10 15
Leu Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly		
	20 25	30
Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala		
	35 40	45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Ile Ile Pro Ala Ser Ala  
180 185 190

<210> 202

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA3

<400> 202

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Glu Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 203

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA13

<400> 203

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly



65		70		75		80									
Tyr	Pro	Trp	Pro	Leu	Tyr	Ala	Asn	Glu	Gly	Leu	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Asn	Trp	Gly	Pro	Asn	Asp	Pro
			100					105					110		
Arg	Arg	Lys	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
		115					120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Leu	Val	Gly	Gly	Pro	Val
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155					160
Gly	Val	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	
Phe	Ile	Leu	Ala	Leu	Leu	Ser	Cys	Leu	Thr	Val	Pro	Thr	Ser	Ala	
		180						185					190		

<210> 204  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> Individual Isolate: SA6

<400> 204

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Gln	Arg	Asn	Thr	Asn
1				5					10					15	
Arg	Arg	Pro	Gln	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		
Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Met	Gly	Val	Arg	Ala
		35					40					45			
Thr	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				
Ile	Pro	Lys	Ala	Arg	Gln	Ser	Ala	Gly	Arg	Ser	Trp	Gly	Gln	Pro	Gly
65					70					75				80	

Tyr Pro Trp Pro Leu Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Lys Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Val Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 205

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: SA11

<400> 205

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Thr Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Phe Tyr Ala Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Asn Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Ile Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Thr Ala  
180 185 190

<210> 206

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<223> Individual Isolate: HK2

<400> 206

Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Thr Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Pro Gln Gly Arg His Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro His Trp Gly Pro Asn Asp Pro

100	105	110
Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys		
115	120	125
Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Val Val Gly Ala Pro Leu		
130	135	140
Gly Gly Val Ala Ala Ala Leu Ala His Gly Val Arg Ala Ile Glu Asp		
145	150	155
Gly Ile Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile		
165	170	175
Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Thr Pro Ala Ser Ala		
180	185	190

<210> 207  
 <211> 40  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 gcgtccgggt tctggaagac ggcgtgaact atgcaacagg 40

<210> 208  
 <211> 40  
 <212> DNA  
 <213> Homo sapiens

<400> 208  
 aggctttcat tgcagttcaa ggccgtgcta ttgatgtgcc 40

<210> 209  
 <211> 40  
 <212> DNA  
 <213> Homo sapiens

<400> 209  
 aagacggcgt gaactatgca acaggaacc ttcttggttg 40

<210> 210  
 <211> 40  
 <212> DNA

<213> Homo sapiens

<400> 210

agttcaaggc cgtgctattg atgtgccaac tgccgttggt

40

<210> 211

<211> 40

<212> DNA

<213> Homo sapiens

<400> 211

aagacggcgt gaattctgca acaggggaacc ttcctggttg

40

<210> 212

<211> 40

<212> DNA

<213> Homo sapiens

<400> 212

agttcaaggc cgtggaattc atgtgccaac tgccgttggt

40

<210> 213

<211> 42

<212> DNA

<213> Homo sapiens

<400> 213

arctycgacg tyacatcgay ctgctygytg gragygccac cc

42

<210> 214

<211> 31

<212> DNA

<213> Homo sapiens

<400> 214

rcargcrtc ttggayatga tcgctggwgc y

31

<210> 215

<211> 42

<212> DNA

<213> Homo sapiens

<400> 215

cratacgacr ycaygtcgay ttgctcgttg gggcggctry yt	42
<210> 216	
<211> 31	
<212> DNA	
<213> Homo sapiens	
<400> 216	
rcaagctrtrc rtggayrtgg trrcrggrgc c	31
<210> 217	
<211> 40	
<212> DNA	
<213> Homo sapiens	
<400> 217	
ttgcggackc acatygacat ggtygtgatg tccgccacgc	40
<210> 218	
<211> 43	
<212> DNA	
<213> Homo sapiens	
<400> 218	
gatgcgcgtt cccgaggtca tcwtagacat crtyrgcggr gcd	43
<210> 219	
<211> 54	
<212> DNA	
<213> Homo sapiens	
<400> 219	
aatggcaccy tgcrcgtgctg gatacaagtr acacctaagtg tggctgtgaa acac	54
<210> 220	
<211> 31	
<212> DNA	
<213> Homo sapiens	
<400> 220	
tgarctagyc ctysargtyg tcttcggygg y	31

<210> 221  
 <211> 54  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 221  
 gccaacgtct ctcgatgttg ggtgccggtt gcccacaatc tcgccataag tcaa 54  
  
 <210> 222  
 <211> 46  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 222  
 aagggcctgc gagcacacat cgatatcatc gtgatgtctg ctacgg 46  
  
 <210> 223  
 <211> 45  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 223  
 ttggtgcgca tcccggaagt catcttgat attgttacag gaggt 45  
  
 <210> 224  
 <211> 40  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 224  
 agtcaggtag gtcggagcaa ccaccgcytc gatcgcagc 40  
  
 <210> 225  
 <211> 46  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 225  
 agccttcacg ttcagacckc gtcgccatca aacrgtccag acctgt 46  
  
 <210> 226  
 <211> 75  
 <212> DNA

<213> Homo sapiens

<400> 226

tccccgcgcyg tgggtatggt ggtrgcgcac rtyctgcgdy tgccccagac cktgttygac 60  
atamtrgcyg gggcc 75

<210> 227

<211> 39

<212> DNA

<213> Homo sapiens

<400> 227

acgccggtga cgcctacagt ggctgtcgca cccccgggc 39

<210> 228

<211> 42

<212> DNA

<213> Homo sapiens

<400> 228

atgagggtcc ccacagcctt tctcgacatg gttgccggag gc 42

<210> 229

<211> 40

<212> DNA

<213> Homo sapiens

<400> 229

cgcgccctat cccaacgcac cgttagagtc catgctgcagg 40

<210> 230

<211> 49

<212> DNA

<213> Homo sapiens

<400> 230

tcagatctta cggatcccct ctatcctagg tgacttgctc accgggggt 49

<210> 231

<211> 54

<212> DNA

<213> Homo sapiens



<400> 231  
cagtcacgct gctgggtggc ccttactccc accgtggcgg ygycttatat cggt 54

<210> 232  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 232  
tagcactctg gtrgayctac tcrctggagg g 31

<210> 233  
<211> 54  
<212> DNA  
<213> Homo sapiens

<400> 233  
aagtctacat gctgggtgtc tctcaccccc accgtggctg cgcaacatct gaat 54

<210> 234  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 234  
aggcgccatg gtcgacctgc ttgcaggcgg c 31

<210> 235  
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<400> 235  
tcagccccga vyytcggagc ggtcacggct cctcttcgga ggg 43

<210> 236  
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<400> 236  
tgytacggat yccccargtg gtcathgaca tcatwgccgg ggsc 44

<210> 237  
<211> 40  
<212> DNA  
<213> Homo sapiens

<400> 237  
cataccaaat gcttccacgc ccgcaacggg attccgcagg

40

<210> 238  
<211> 37  
<212> DNA  
<213> Homo sapiens

<400> 238  
tcttcttgcg ggcgccgcag tggtttgctc atccctg

37

<210> 239  
<211> 52  
<212> DNA  
<213> Homo sapiens

<400> 239  
atctagcatc ttgagggtac ctgagatttg tgcgagtgtg atatttggtg gc

52

<210> 240  
<211> 33  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (22)..  
<223> "Ala" or "Thr"

<220>  
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<222> (24)..  
<223> "Val" or "Ile"

<220>  
<221> SITE  
<222> (26)  
<223> "Val" or "Met"

<400> 240

Trp Ile Gln Val Thr Pro Asn Val Ala Val Lys His Arg Gly Ala Leu  
1 5 10 15

Thr His Asn Leu Arg Xaa His Xaa Asp Xaa Ile Val Met Ala Ala Thr  
20 25 30

Val

<210> 241

<211> 33

<212> PRT

<213> Homo sapiens

<400> 241

Trp Val Pro Val Ala Pro Asn Leu Ala Ile Ser Gln Pro Gly Ala Leu  
1 5 10 15

Thr Lys Gly Leu Arg Ala His Ile Asp Ile Ile Val Met Ser Ala Thr  
20 25 30

Val

<210> 242

<211> 33

<212> PRT

<213> Homo sapiens

<220>

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<222> (5)

<223> "Ser" or "Thr"

<220>

<221> SITE

<222> (11)

<223> "Arg" or "Gln"

<220>

<221> SITE

<222> (12)

<223> "Arg" or "Gln"

<400> 242

Trp Ile Pro Val Xaa Pro Asn Val Ala Val Xaa Xaa Pro Gly Ala Leu  
 1 5 10 15

Thr Gln Gly Leu Arg Thr His Ile Asp Met Val Val Met Ser Ala Thr  
 20 25 30

Leu

<210> 243  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (3)  
 <223> "Pro" or "Ser"

<220>  
 <221> SITE  
 <222> (33)  
 <223> "Leu" or "Met"

<400> 243  
 Trp Thr Xaa Val Thr Pro Thr Val Ala Val Arg Tyr Val Gly Ala Thr  
 1 5 10 15

Thr Ala Ser Ile Arg Ser His Val Asp Leu Leu Val Gly Ala Ala Thr  
 20 25 30

Xaa

<210> 244  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<220>  
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<220>  
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<222> (13)  
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 <223> "Ser" or "Thr" or "Asn"

<220>  
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 <223> "Val" or "Ile"

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 <223> "Pro" or "Ser"

<220>  
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 <222> (18)  
 <223> "Thr" or "Lys"

<220>  
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 <222> (19)  
 <223> "Thr" or "Ala"

<220>  
 <221> SITE  
 <222> (22)  
 <223> "Arg" or "His"

<220>  
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 <222> (32)  
 <223> "Ala" or "Val" or "Thr"

<400> 244  
 Trp Val Ala Leu Xaa Pro Thr Leu Ala Ala Arg Asn Xaa Xaa Xaa Xaa  
     1                  5                  10                  15  
 Thr Xaa Xaa Ile Arg Xaa His Val Asp Leu Leu Val Gly Ala Ala Xaa  
           20                  25                  30  
 Phe

<210> 245  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (3)  
 <223> "Ala" or "Pro"

<220>  
 <221> SITE  
 <222> (4)  
 <223> "Val" or "Met"

<220>  
 <221> SITE  
 <222> (5)  
 <223> "Thr" or "Ala"

<220>  
 <221> SITE  
 <222> (17)  
 <223> "Thr" or "Ala"

<220>  
 <221> SITE  
 <222> (18)  
 <223> "Thr" or "Ala"

<220>  
 <221> SITE  
 <222> (23)  
 <223> "His" or "Tyr"

<400> 245  
 Trp Val Xaa Xaa Xaa Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro  
   1                  5                  10                  15  
  
 Xaa Xaa Gln Leu Arg Arg Xaa Ile Asp Leu Leu Val Gly Ser Ala Thr  
                   20                  25                  30  
  
 Leu

<210> 246

<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 246  
Trp Thr Pro Val Thr Pro Thr Val Ala Val Ala His Pro Gly Ala Pro  
1 5 10 15  
Leu Glu Ser Phe Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr  
20 25 30

Leu

<210> 247  
<211> 33  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (10)  
<223> "Val" or "Ala"

<220>  
<221> SITE  
<222> (11)  
<223> "Ser" or "Pro"

<220>  
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<222> (18)  
<223> "Asp" or "Glu"

<220>  
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<222> (20)  
<223> "Leu" or "Ile"

<400> 247  
Trp Val Ala Leu Thr Pro Thr Val Ala Xaa Xaa Tyr Ile Gly Ala Pro  
1 5 10 15  
Leu Xaa Ser Xaa Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr  
20 25 30

Val

<210> 248  
<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 248  
Trp Val Ser Leu Thr Pro Thr Val Ala Ala Gln His Leu Asn Ala Pro  
1 5 10 15  
Leu Glu Ser Leu Arg Arg His Val Asp Leu Met Val Gly Gly Ala Thr  
20 25 30

Leu

<210> 249  
<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 249  
Trp Val Pro Leu Thr Pro Thr Val Ala Ala Pro Tyr Pro Asn Ala Pro  
1 5 10 15  
Leu Glu Ser Met Arg Arg His Val Asp Leu Met Val Gly Ala Ala Thr  
20 25 30

Met

<210> 250  
<211> 33  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (3)  
<223> "Gln" or "His"

<220>  
<221> SITE  
<222> (12)



<223> "Asn" or "Ser" or "Thr"

<220>

<221> SITE

<222> (13)

<223> "Leu" or "Phe"

<220>

<221> SITE

<222> (23)

<223> "Ala" or "Val"

<400> 250

Trp Val Xaa Ile Thr Pro Thr Leu Ser Ala Pro Xaa Xaa Gly Ala Val  
1 5 10 15

Thr Ala Pro Leu Arg Arg Xaa Val Asp Tyr Leu Ala Gly Gly Ala Ala  
20 25 30

Leu

<210> 251

<211> 33

<212> PRT

<213> Homo sapiens

<400> 251

Trp His Ala Val Thr Pro Thr Leu Ala Ile Pro Asn Ala Ser Thr Pro  
1 5 10 15

Ala Thr Gly Phe Arg Arg His Val Asp Leu Leu Ala Gly Ala Ala Val  
20 25 30

Val

<210> 252

<211> 23

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> "Val" or "Ala"

<220>  
 <221> SITE  
 <222> (18)  
 <223> "Glu" or "Gln"  
  
 <400> 252  
 Thr Leu Thr Met Ile Leu Ala Tyr Ala Ala Arg Val Pro Glu Leu Xaa  
     1                    5                    10                    15  
  
 Leu Xaa Val Val Phe Gly Gly  
                     20

<210> 253  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 253  
 Thr Thr Thr Met Leu Leu Ala Tyr Leu Val Arg Ile Pro Glu Val Ile  
     1                    5                    10                    15  
  
 Leu Asp Ile Val Thr Gly Gly  
                     20

<210> 254  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (2)  
 <223> "Ala" or "Thr"

<220>  
 <221> SITE  
 <222> (4)  
 <223> "Met" or "Leu"

<220>  
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 <223> "Ala" or "Val"

<220>

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<223> "Ile" or "Leu"

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<222> (20)  
<223> "Ile" or "Val"

<220>  
<221> SITE  
<222> (21)  
<223> "Ser" or "Gly"

<400> 254  
Thr Xaa Thr Xaa Ile Leu Ala Tyr Xaa Met Arg Val Pro Glu Val Ile  
1 5 10 15

Xaa Asp Ile Xaa Xaa Gly Ala  
20

<210> 255  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (9)  
<223> "Val" or "Ile"

<220>  
<221> SITE  
<222> (16)  
<223> "Leu" or "Val"

<220>  
<221> SITE  
<222> (20)  
<223> "Ile" or "Leu"

<400> 255  
Ala Val Gly Met Val Val Ala His Xaa Leu Arg Leu Pro Gln Thr Xaa  
1 5 10 15

Phe Asp Ile Xaa Ala Gly Ala  
20

<210> 256  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (2)  
<223> "Ala" or "Thr"

<220>  
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<222> (6)  
<223> "Val" or "Leu"

<220>  
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<222> (12)  
<223> "Ile" or "Leu"

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<222> (16)  
<223> "Val" or "Ile"

<220>  
<221> SITE  
<222> (17)  
<223> "Val" or "Leu" or "Met"

<220>  
<221> SITE  
<222> (19)  
<223> "Met" or "Val"

<220>  
<221> SITE  
<222> (21)  
<223> "Ala" or "Thr"

<400> 256  
Thr Xaa Ala Leu Val Xaa Ser Gln Leu Leu Arg Xaa Pro Gln Ala Xaa  
1 5 10 15

Xaa Asp Xaa Val Xaa Gly Ala  
20

<210> 257  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (2)  
<223> "Thr" or "Ala"

<220>  
<221> SITE  
<222> (6)  
<223> "Val" or "Ile" or "Met"

<220>  
<221> SITE  
<222> (12)  
<223> "Ile" or "Val"

<220>  
<221> SITE  
<222> (16)  
<223> "Ile" or "Val"

<400> 257  
Thr Xaa Ala Leu Val Xaa Ala Gln Leu Leu Arg Xaa Pro Gln Ala Xaa  
1 5 10 15  
  
Leu Asp Met Ile Ala Gly Ala  
20

<210> 258  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 258  
Thr Thr Thr Leu Leu Leu Ala Gln Ile Met Arg Val Pro Thr Ala Phe  
1 5 10 15  
  
Leu Asp Met Val Ala Gly Gly  
20

<210> 259  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (5)  
<223> "Leu" or "Val"

<220>  
<221> SITE  
<222> (21)  
<223> "Thr" or "Ala"

<400> 259  
Thr Thr Thr Leu Xaa Leu Ala Gln Val Met Arg Ile Pro Ser Thr Leu  
1 5 10 15

Val Asp Leu Leu Xaa Gly Gly  
20

<210> 260  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 260  
Thr Ala Thr Leu Val Leu Ala Gln Leu Met Arg Ile Pro Gly Ala Met  
1 5 10 15

Val Asp Leu Leu Ala Gly Gly  
20

<210> 261  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 261  
Thr Ser Ala Leu Ile Met Ala Gln Ile Leu Arg Ile Pro Ser Ile Leu  
1 5 10 15

Gly Asp Leu Leu Thr Gly Gly  
20

<210> 262  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (1)  
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<221> SITE  
<222> (5)  
<223> "Val" or "Leu"

<220>  
<221> SITE  
<222> (9)  
<223> "Leu" or "Met" or "Val"

<220>  
<221> SITE  
<222> (23)  
<223> "Gly" or "Ala"

<400> 262  
Xaa Thr Ala Leu Xaa Met Ala Gln Xaa Leu Arg Ile Pro Gln Val Val  
1 5 10 15

Ile Asp Ile Ile Ala Gly Xaa  
20

<210> 263  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 263  
Thr Thr Thr Leu Val Leu Ser Ser Ile Leu Arg Val Pro Glu Ile Cys  
1 5 10 15

Ala Ser Val Ile Phe Gly Gly  
20

<210> 264

<211> 191  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (49)  
<223> "Thr" or "Pro"

<400> 264

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Xaa Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Val Pro Ala Ser Ala  
180 185 190

<210> 265



<211> 191  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
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 <222> (4)  
 <223> "Thr" or "Asn"  
  
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 <221> SITE  
 <222> (10)  
 <223> "Lys" or "Gln"  
  
 <220>  
 <221> SITE  
 <222> (16)  
 <223> "Ser" or "Asn"  
  
 <220>  
 <221> SITE  
 <222> (70)  
 <223> "Arg" or "His" or "Gln"  
  
 <220>  
 <221> SITE  
 <222> (75)  
 <223> "Ala" or "Thr"  
  
 <220>  
 <221> SITE  
 <222> (81)  
 <223> "His" or "Tyr"  
  
 <220>  
 <221> SITE  
 <222> (87)  
 <223> "Ala" or "Gly"  
  
 <220>  
 <221> SITE  
 <222> (88)  
 <223> "Asn" or "Asp"  
  
 <220>  
 <221> SITE  
 <222> (91)  
 <223> "Leu" or "Met"

<220>  
<221> SITE  
<222> (101)  
<223> "Arg" or "His"

<220>  
<221> SITE  
<222> (106)  
<223> "Ser" or "Asn"

<220>  
<221> SITE  
<222> (110)  
<223> "Thr" or "Asn"

<220>  
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<222> (142)  
<223> "Gly" or "Ala"

<220>  
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<222> (147)  
<223> "Val" or "Ala"

<220>  
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<222> (158)  
<223> "Val" or "Leu"

<220>  
<221> SITE  
<222> (169)  
<223> "Leu" or "Ile"

<220>  
<221> SITE  
<222> (173)  
<223> "Ser" or "Pro"

<220>  
<221> SITE  
<222> (187)  
<223> "Ile" or "Val" or "Thr"

<220>  
<221> SITE

<222> (189)

<223> "Ala" or "Val"

<400> 265

Met Ser Thr Xaa Pro Lys Pro Gln Arg Xaa Thr Lys Arg Asn Thr Xaa  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Xaa Pro Glu Gly Arg Xaa Trp Ala Gln Pro Gly  
65 70 75 80

Xaa Pro Trp Pro Leu Tyr Xaa Xaa Glu Gly Xaa Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Xaa Gly Ser Arg Pro Xaa Trp Gly Pro Xaa Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Xaa Pro Leu  
130 135 140

Gly Gly Xaa Ala Arg Ala Leu Ala His Gly Val Arg Val Xaa Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Xaa Pro Xaa Ser Ala  
180 185 190

<210> 266

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)  
 <223> "Asn" or "Thr"  
  
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 <222> (10)  
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 <222> (16)  
 <223> "Asn" or "Ser"  
  
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 <222> (49)  
 <223> "Thr" or "Pro"  
  
 <220>  
 <221> SITE  
 <222> (70)  
 <223> "Arg" or "Gln" or "His"  
  
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 <221> SITE  
 <222> (75)  
 <223> "Thr" or "Ala"  
  
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 <221> SITE  
 <222> (81)  
 <223> "Tyr" or "His"  
  
 <220>  
 <221> SITE  
 <222> (87)  
 <223> "Gly" or "Ala"  
  
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 <222> (88)  
 <223> "Asn" or "Asp"  
  
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 <222> (91)  
 <223> "Met" or "Leu" or "Cys"

<220>  
<221> SITE  
<222> (101)  
<223> "His" or "Arg"

<220>  
<221> SITE  
<222> (106)  
<223> "Ser" or "Asn"

<220>  
<221> SITE  
<222> (110)  
<223> "Thr" or "Asn"

<220>  
<221> SITE  
<222> (142)  
<223> "Ala" or "Gly"

<220>  
<221> SITE  
<222> (147)  
<223> "Val" or "Ala"

<220>  
<221> SITE  
<222> (158)  
<223> "Leu" or "Val"

<220>  
<221> SITE  
<222> (169)  
<223> "Ile" or "Leu"

<220>  
<221> SITE  
<222> (173)  
<223> "Ser" or "Pro"

<220>  
<221> SITE  
<222> (187)  
<223> "Thr" or "Ile" or "Val"

<220>  
<221> SITE  
<222> (189)

<223> "Val" or "Ala"

<400> 266

Met Ser Thr Xaa Pro Lys Pro Gln Arg Xaa Thr Lys Arg Asn Thr Xaa  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Xaa Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Xaa Pro Glu Gly Arg Xaa Trp Ala Gln Pro Gly  
65 70 75 80

Xaa Pro Trp Pro Leu Tyr Xaa Xaa Glu Gly Xaa Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Xaa Gly Ser Arg Pro Xaa Trp Gly Pro Xaa Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Xaa Pro Leu  
130 135 140

Gly Gly Xaa Ala Arg Ala Leu Ala His Gly Val Arg Val Xaa Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Leu Thr Xaa Pro Xaa Ser Ala  
180 185 190

<210> 267

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> "Asn" or "Ile"

<220>

<221> SITE

<222> (12)

<223> "Ile" or "Lys"

<220>

<221> SITE

<222> (48)

<223> "Thr" or "Ala"

<220>

<221> SITE

<222> (71)

<223> "Ser" or "Pro"

<220>

<221> SITE

<222> (110)

<223> "Ser" or "Thr" or "Asn"

<220>

<221> SITE

<222> (129)

<223> "Gly" or "Ser"

<220>

<221> SITE

<222> (130)

<223> "Phe" or "Leu"

<220>

<221> SITE

<222> (137)

<223> "Ile" or "Val"

<220>

<221> SITE

<222> (142)

<223> "Ala" or "Gly"

<220>

<221> SITE

<222> (187)

<223> "Thr" or "Ile"

<220>

<221> SITE

<222> (189)

<223> "Ala" or "Val"

<400> 267

Met Ser Thr Xaa Pro Lys Pro Gln Arg Lys Thr Xaa Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Xaa  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Xaa Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Xaa Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Xaa Xaa Ala Asp Leu Met Gly Tyr Xaa Pro Val Val Gly Xaa Pro Leu  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Leu Leu Ala Leu Leu Ser Cys Ile Thr Xaa Pro Xaa Ser Ala  
180 185 190

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Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
                   20                  25                  30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Xaa  
           35                  40                  45

Thr	Arg	Lys	Xaa	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
50						55					60				
Ile	Pro	Lys	Asp	Arg	Arg	Ser	Thr	Gly	Lys	Xaa	Trp	Gly	Lys	Pro	Gly
65					70					75				80	
Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Xaa	Pro	Xaa	Trp	Gly	Pro	Thr	Asp	Pro
			100					105					110		
Arg	His	Xaa	Ser	Arg	Asn	Leu	Gly	Xaa	Val	Ile	Asp	Thr	Ile	Thr	Cys
		115					120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Val	Val	Gly	Ala	Pro	Val
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Val	Leu	Glu	Asp
145					150					155				160	
Gly	Ile	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	
Phe	Leu	Leu	Ala	Leu	Leu	Ser	Cys	Xaa	Thr	Val	Pro	Val	Ser	Ala	
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 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
                   20                  25                  30  
 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Xaa  
           35                  40                  45  
 Thr Arg Lys Xaa Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
           50                  55                  60  
 Ile Pro Lys Asp Arg Arg Xaa Thr Gly Lys Xaa Trp Gly Xaa Pro Gly  
           65                  70                  75                  80  
 Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Xaa Gly Trp Ala Gly Trp  
                   85                  90                  95  
 Leu Leu Ser Pro Arg Gly Ser Xaa Pro Xaa Trp Gly Pro Xaa Asp Pro  
                   100                  105                  110  
 Arg His Xaa Ser Arg Asn Xaa Gly Xaa Val Ile Asp Thr Xaa Thr Cys  
           115                  120                  125  
 Xaa Xaa Ala Asp Leu Met Gly Tyr Xaa Pro Val Val Gly Xaa Pro Xaa  
           130                  135                  140  
 Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
           145                  150                  155                  160  
 Gly Xaa Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
                   165                  170                  175

Phe Leu Leu Ala Leu Leu Ser Cys Xaa Xaa Xaa Pro Xaa Ser Ala  
180 185 190

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Met Ser Thr Leu Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Ile  
1 5 10 15

Arg Arg Pro Gln Asp Xaa Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Val Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Arg Ser Glu Gly Arg Ser Trp Ala Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Ala Leu Glu Asp  
 145                                      150                                      155                                      160

Gly Ile Asn Phe Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
    165                                      170                                      175

Phe Leu Leu Ala Leu Phe Ser Cys Leu Xaa His Pro Ala Ala Ser  
    180                                      185                                      190

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<400> 271

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg	Arg	Pro	Met	Asp	Val	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		

Gly	Val	Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Xaa
		35					40					45			

Xaa	Arg	Lys	Thr	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
		50					55					60			

Ile	Pro	Xaa	Ala	Arg	Xaa	Xaa	Glu	Gly	Arg	Ser	Trp	Ala	Gln	Pro	Gly
65					70					75					80



Tyr	Pro	Trp	Pro	Leu	Tyr	Gly	Asn	Glu	Gly	Cys	Gly	Trp	Ala	Gly	Trp
				85					90					95	
Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Xaa	Asn	Asp	Pro
			100					105					110		
Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys	Val	Ile	Asp	Thr	Leu	Thr	Cys
			115				120					125			
Gly	Phe	Ala	Asp	Leu	Met	Gly	Tyr	Ile	Pro	Xaa	Val	Gly	Ala	Pro	Val
	130					135					140				
Gly	Gly	Val	Ala	Arg	Ala	Leu	Ala	His	Gly	Val	Arg	Xaa	Xaa	Glu	Asp
145					150					155				160	
Gly	Xaa	Asn	Tyr	Ala	Thr	Gly	Asn	Leu	Pro	Gly	Cys	Ser	Phe	Ser	Ile
				165					170					175	
Phe	Leu	Leu	Ala	Leu	Xaa	Ser	Cys	Leu	Thr	Xaa	Pro	Xaa	Ser	Ala	
			180					185					190		

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<223> "Thr" or "Ser"

<400> 272

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Xaa Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Xaa Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Lys Ala Arg Gln Xaa Xaa Gly Arg Ser Trp Gly Gln Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Xaa Tyr Ala Asn Glu Gly Leu Xaa Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Xaa Trp Gly Pro Asn Asp Pro  
100 105 110

Arg Arg Xaa Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Gly Pro Val  
130 135 140

Gly Gly Val Ala Arg Ala Leu Ala His Gly Val Arg Xaa Leu Glu Asp  
145 150 155 160

Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile  
165 170 175

Phe Xaa Leu Ala Leu Leu Ser Cys Leu Xaa Xaa Pro Xaa Xaa Ala  
180 185 190

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Xaa	Arg	Pro	Xaa	Asp	Xaa	Lys	Phe	Pro	Gly	Gly	Gly	Gln	Ile	Val	Gly
			20					25					30		

Gly	Val	Tyr	Xaa	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Xaa	Gly	Val	Arg	Xaa
		35					40					45			

Xaa	Arg	Lys	Xaa	Ser	Glu	Arg	Ser	Gln	Pro	Arg	Gly	Arg	Arg	Gln	Pro
	50					55					60				

Ile	Pro	Xaa	Xaa	Arg	Xaa	Xaa	Xaa	Gly	Xaa	Xaa	Trp	Xaa	Xaa	Pro	Gly
65				70					75					80	

Xaa	Pro	Trp	Pro	Xaa	Tyr	Xaa	Xaa	Glu	Gly	Xaa	Xaa	Trp	Ala	Gly	Trp
			85						90					95	

Leu	Leu	Ser	Pro	Xaa	Gly	Ser	Xaa	Pro	Xaa	Trp	Gly	Xaa	Xaa	Asp	Pro
			100					105						110	

Arg	Xaa	Xaa	Ser	Arg	Asn	Xaa	Gly	Xaa	Val	Ile	Asp	Thr	Xaa	Thr	Cys
		115					120					125			

Xaa	Xaa	Ala	Asp	Leu	Met	Gly	Tyr	Xaa	Pro	Xaa	Val	Gly	Xaa	Pro	Xaa
	130					135					140				

Gly	Gly	Xaa	Ala	Xaa	Ala	Leu	Ala	His	Gly	Val	Arg	Xaa	Xaa	Glu	Asp
145					150					155				160	

Gly	Xaa	Asn	Xaa	Ala	Thr	Gly	Asn	Xaa	Pro	Gly	Cys	Xaa	Phe	Ser	Ile
			165					170						175	

Phe	Xaa	Leu	Ala	Leu	Xaa	Ser	Cys	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Xaa	
		180						185						190	

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Gly Val Tyr Xaa Leu Pro Arg Arg Gly Pro Arg Xaa Gly Val Arg Xaa  
35 40 45

Xaa Arg Lys Xaa Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro  
50 55 60

Ile Pro Xaa Xaa Arg Xaa Xaa Xaa Gly Xaa Xaa Trp Xaa Xaa Pro Gly  
65 70 75 80

Xaa Pro Trp Pro Xaa Tyr Xaa Xaa Glu Gly Xaa Xaa Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Xaa Gly Ser Xaa Pro Xaa Trp Gly Xaa Xaa Asp Pro  
100 105 110

Arg Xaa Xaa Ser Arg Asn Xaa Gly Xaa Val Ile Asp Thr Xaa Thr Cys  
115 120 125

Xaa Xaa Ala Asp Leu Met Gly Tyr Xaa Pro Xaa Val Gly Xaa Pro Xaa  
130 135 140

Gly Gly Xaa Ala Xaa Ala Leu Ala His Gly Val Arg Xaa Xaa Glu Asp  
145 150 155 160

Gly Xaa Asn Xaa Ala Thr Gly Asn Xaa Pro Gly Cys Xaa Phe Ser Ile  
165 170 175

Phe Xaa Leu Ala Leu Xaa Ser Cys Xaa Xaa Xaa Pro Xaa Xaa Xaa  
180 185 190